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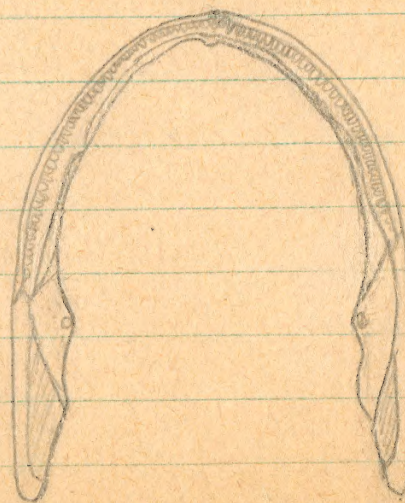
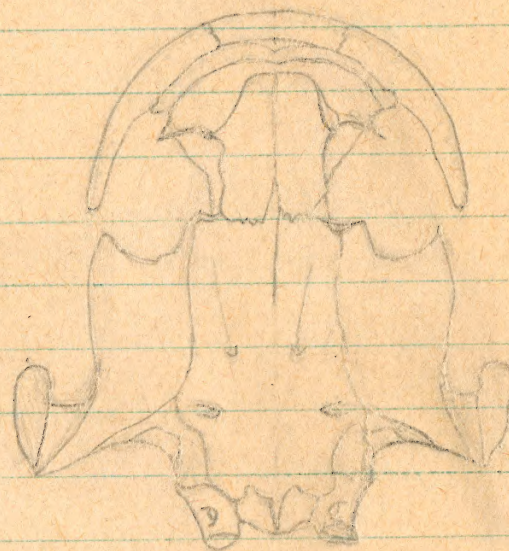
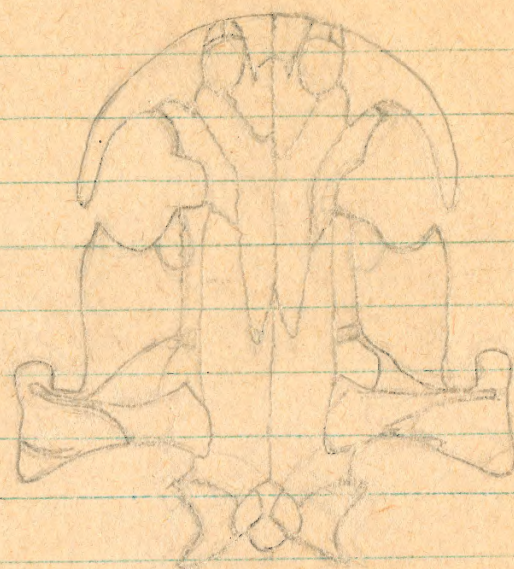
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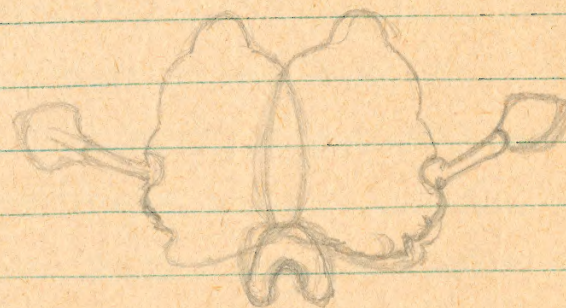
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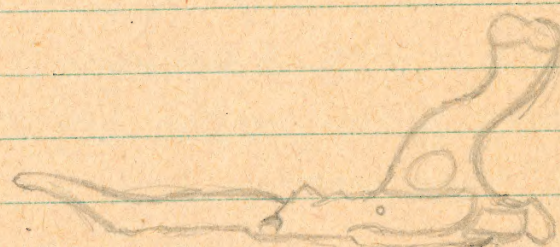


MEXICO, 1949
RUNNING NOTES.





PECTORAL GIRDLE



PELVIC GIRDLE

CANON CONTRERAS, FEB. 24, 1948.

WE DROVE TO 10,200 FEET AND COLLECTED IN THE FIR WOODS THERE. THE FIR BELT STARTS AT 8,500 AND CONTINUES AS FAR AS WE WENT. BELOW THE FIR BELT IS PINE, WITH A SPRINKLING OF OAK. THIS SHOWS A GRADUAL TRANSITION TO MUCH OAK AND LITTLE PINE, AND FINALLY NO PINE. SMALL SIDE CANYONS HAVE STREAMS FED BY MT. SPRINGS. ALL STREAM BEDS & SPRING SOURCES ARE QUITE ROCKY. CARLA WAGNER AND I WALKED UP A SMALL STREAM, TURNING ROCKS IN AND ON THE EDGES OF THE STREAM. NOTHING THERE. I TRIED ROCKS ON THE SIDE OF THE HILL, NO LUCK TILL I GOT TO THE EDGE OF A SMALL WET AREA, FED BY SEVERAL SPRINGS. I FOUND 3 OEDIPUS UNDER ROCKS, THE UNDERSIDE BEING FAIRLY DRY, OR ONLY DAMP. THERE WERE NO SAGAMANDERS IN THE VERY WET AREAS.

I WENT DOWN ABOUT 150 FT TO A LEVEL AREA WHICH HAD BEEN USED AS A CAMPSITE, AND WHICH WAS DAMP ALL OVER, AS A SMALL STREAM CROSSED IT. IT WAS ALMOST MARSHY. AGAIN IN THE DRYER PART, I TURNED A ROCK AND FOUND A HYLA LAURENTI. HE DID NOT TRY TO GET AWAY. HELMUT SAYS HE HAS NEVER SEEN THE SPECIES BEFORE.

CANON CONTRERAS, FEB. 25, 1948. A.M.

WE ARRIVED IN THE WOODS BEFORE THE SUN HAD FULLY COME UP, AND THE AIR AND GROUND WERE QUITE CHILLY. I FOLLOWED A SMALL CANYON, WITH WHAT MUST BE A FAIRLY PERMANENT WATER FLOW. I FOUND NOTHING NEITHER IN THE STREAM OR IN

ANY OF THE SEVERAL SPRINGS TO BE FOUND ON THE MOUNTAIN SIDE. TO DATE I HAVE WORKED ON THE ATUSCO SIDE OF THE CAÑON, WHICH IS THE ^{SOUTH} ~~NORTH~~ SIDE, AND THEREFORE GETS LESS SUN EACH DAY. IT IS QUITE WET IN PLACES.

THE PEDREGAL, FEB. 25, P.M.

THIS IS AN AREA OF HEAVY AND EXTENSIVE LAVA FLOW, WITH GARGAMOUS CLINKERS ALL OVER THE PLACE. IT IS VERY, VERY DRY; I SAW NO WATER IN THE WHOLE PLACE. THERE ARE MANY CACTI AND A FEW LIVE OAKS, THE LATTER CHIEFLY ON HILLSIDES. PEPPER TREES ARE COMMON, AND A FEW PINE ARE ON A HIGHER HILLSIDE. I SPENT 3 HOURS HERE, AND SAW ONE LIZARD, 3 TIMES. THERE WERE MANY SCORPIONS, PILL BUGS, BLACK WIDOWS AND OTHER SPIDERS, AND A FEW CATERpillARS UNDER ROCKS. THE SCORPION WAS A COLLARED FIRM, PROBABLY *FERMANIPOLZI*, WHICH I COULDN'T GET CLOSE TO. BLACK BACK AND TAIL, WITH A HINT OF CHEVRON MARKINGS. I SAW NOTHING ELSE THERE.

CANON CONTRAS, FEB. 25, LATER P.M.

RETURNED HERE FOR ANOTHER TRY AT THE NEOGENIC SALAMANDERS WAGNER SAYS HE HAS COLLECTED IN THE MOUNTAIN STREAMS HERE. I FOUND NO SALAMANDERS, BUT I DID SEE SALAMANDER EGGS, ATTACHED TO THE UNDER SIDE OF A ROCK IN A MOUNTAIN POOL. THEY WERE INDIVIDUALLY ATTACHED. EACH WAS ABOUT $\frac{3}{4}$ INCH IN DIAMETER, INCLUDING GELATIN. THE EGGS, IN THE NEURAL STAGE, WERE ABOUT $\frac{1}{4}$ INCH IN DIAMETER, LONGER THAN BROAD.

CANON CONTRAS, FEB. 26, A.M.

CROSSED THE CAÑON TO THE OTHER SIDE, WHERE THE SUN STRIKES IN EARLY MORNING, AND SHINES ALL DAY. THIS IS THE NORTH BANK, WITH A SOUTHERN EXPOSURE, ON THE SLOPE OF SAN MIGUEL. THIS SIDE IS CONSIDERABLY DRIER THAN THE OTHER, WITH LITTLE OR NO WATER. THERE WERE NO STREAMS WHERE I WORKED. THERE WERE A FEW OAK TREES, WITH YUCCA, CACTUS, AND MAGNOLIA ON THE SLOPE. I FOUND A SCORPION UNDER A ROCK ON THIS SLOPE, OF THE SAME SPECIES AS THOSE ON THE MOUNTAINS IN THE CITY. I HAVE SEEN THEM IN GUAPUTEREC PARK AND AT THE LOS ANGELES QUANT.

PEDREGAL, FEB. 26, P.M.

RETURNED WITH GUN TO TRY AGAIN FOR THE SINGLE TUELL, BUT I COULDN'T EVEN FIND HIM. THE HEAT OF THE AFTERNOON IS INTENSE, AND THE LIZARDS PROBABLY DO NO SUNNING THEN. GOT NOTHING.

KILOMETER 63, M.C. - CUERNAVACA HWY, FEB 27, 1949.

THIS IS THE TYPE LOCALITY OF CUMECOS INDUBIUS TYLERI, SO I STOPPED ON THE WAY TO THE HOTSPOTS AT CUERNAVACA TO SEE WHAT WE COULD FIND. IT IS IN AN AREA OF HEAVY PINE-OAK FOREST, WITH MANY ROCKS AND A FEW LOGS. WE COULD FIND NO LIZARDS AT ALL, ALTHOUGH IT WAS A PERFECT PLACE FOR THEM. WE TURNED ONE VERY LARGE LOG, AND WARREN SAID HE SAW A "BLACK LIZARD" RUN UNDER. WE COULD NOT RELOCATE THE BEAST, HOWEVER. WE SPENT ONLY A FEW MINUTES THERE AS THE HOTSPOTS WAITED DINNER ON US.

KILOMETER 96, M.C. - CUERNAVACA HWY, FEB 28, 1949.

THIS IS AN AREA OF GRASSLANDS, WITH PINES ON THE KNOLS. THE GRASS IS "SACATON", A HEAVY BUNCH GRASS, WHICH GROWS WITH EXCEEDINGLY LONG BLADES. I FOUND THREE SCeloporus UNDER A SINGLE PIECE OF BARK ON A LARGE LOG ABOUT 3 FEET ABOVE THE GROUND, ALL 3 TOGETHER. I SAW SEVERAL OTHER SCELOPS IN THE GRASS WHERE IT IS IMPOSSIBLE TO CATCH THEM. THE GRASS APPEARS TO BE VERY DRY, BUT AT SUNRISE THE DOW IS VERY HEAVY, AND SUFFICIENT MOISTURE IS PRESENT FOR ANY LIZARD. MY PANTS WERE SOAKED TO THE KNEES.

THE 3 SCELOPS ARE MOST STRIKINGLY COLORED. THE ~~3~~ CENTER OF THE BELLY IS LIGHT ORANGE IN 2, GREENISH IN THE 3RD. THIS LIGHT AREA IS BORDERED IN ALL 3 BY A VERY BRIGHT ORANGE. THE SIDES ARE BLACK WITH GREENISH SPOTS AND STRIPES. THEY HAVE MORE OR LESS DEFINED GREEN DORSO-LATERAL LINES. ALL HAVE A NARROW, INCOMPLETE

BLACK NUCHAL COLLAR. ONE HAS AN ORANGE THROAT, THE SECOND A LIGHT, FLESH COLORED THROAT, THE THIRD HAS A YELLOWISH GREEN THROAT.

MARCH 1, 1949.

TODAY WAS SPENT PREPARING FOR THE TRIP TO VERACRUZ. I CAUGHT A SINGLE SCeloporus IN THE PARKING AREA OF THE LOS ANGELES COURTS. WE DROVE TO PUEBLA AND SPENT THE NIGHT.

MARCH 2, 1949.

LEFT PUEBLA EARLY, DROVE TO ORIZABA (MT.). THE LOW LAND TO THE WEST OF THE ^{MOUNTAIN} ~~AREA~~ IS EXCEEDINGLY DRY. THERE WAS NO VEGETATION, AND THE VOLCANIC DUST LIES THICK ALL OVER. THERE WAS NO WATER AND NO STREAMS. WE TRIED TO CLIMB IT FROM THE WEST, BUT ALL ROADS LIE INCHES DEEP IN DUST, AND THE TRUCK COULDN'T PULL IT. WE THEN LEFT THE MOUNTAIN AND WENT NORTH TO PEROTE. WE TRIED TO CLIMB THE CORDON DE PEROTE FROM THE CITY OF PEROTE, BUT THE TRUCK AGAIN STALLED. WE THEN CONTINUED AROUND TO THE NORTH, AND WENT UP FROM A SMALL TOWN NAMED SIERRA DE AGUA. WE CLIMBED TO A SMALL VILLAGE, LOS PESCADOS, AND SPENT THE NIGHT IN A MEADOW SLIGHTLY HIGHER THAN THE VILLAGE. I FOUND ONE SCeloporus UNDER A LOG AS WE CAME UP THE MOUNTAIN, BUT I AM NOW HIGHLY UNCERTAIN AS TO WHICH INDIVIDUAL IT IS. THIS SIDE OF THE CORDON HAS QUITE HEAVY PINE COVER, AND WE ARE CAMPED NEAR A SMALL STREAM. THERE ARE SPRINGS IN THE MOUNTAINS.

MARCH 3, 1949.

WENT OUT ALONG THE SMALL STREAM BEFORE BREAKFAST, AND FOUND A SPRING A SHORT WAY BELOW THE CAMP. I PICKED UP 5 SALAMANDERS HERE, 4 OF THEM UNDER THE SAME ROCK, HIGH ON THE SIDES. I ALSO GOT ONE *SCeloporus* HERE, AND WARNER CAUGHT A SECOND. THEY WERE ALL UNDER ROCKS IN A DRY FIELD.

WE BROKE CAMP AND WENT HIGHER AFTER BREAKFAST. WE FINALLY STOPPED IN AN ALPINE MEADOW AT ABOUT 10,500 FT. THE VILLAGE OF LOS CONEJOS IS JUST OVER THE MOUNTAIN ABOUT 1/2 MILE. THE PEAK OF COBRE ~~MOUNTAIN~~ IS CLEARLY VISIBLE DIRECTLY TO THE SOUTH OF OUR CAMP. IT IS AN ENORMOUS RECTANGLE, LOOKING LIKE A COFFIN, HIGH IN THE SKY. IT IS ABOUT 4,000 FEET ABOVE US.

THE ALPINE MEADOW IN WHICH WE ARE CAMPED IS QUITE FLAT AND FULL OF LOGS. IT IS SURROUNDED BY FIR TREES, ALTHO THERE ARE PINE GROVES HIGHER UP. THE LOGS IN THE MEADOW ARE FULL OF *SCeloporus*, AND SEVERAL MEXICANS AND ~~INDIANS~~ I BUILT UP A LARGE COLLECTION OF THEM.

MACHOWSKI TURNED OVER A LOG AT THE EDGE OF A SMALL CREEK AND FOUND A *CRISTATUS THISENIATUS*. HE CALLED TO ME AND I CAUGHT IT. IT WAS VERY SMALL (MEASUREMENTS JUST BEFORE PRESERVING - DEAD: BODY 332 mm., TAIL (INC. RATTLE) 38 mm., TOTAL 370 mm. THE MEXICANS TURNED UP ANOTHER RATTLE ON THE OTHER SIDE OF THE MEADOW IN A SEEPAGE AREA, UNDER A LOG. BOTH OF THE SPECIMENS WERE IN QUITE DAMP AREAS. THE 2ND MEASURED: BODY 437 mm., TAIL 53 mm., TOTAL 490 mm. HE HAD A *Microtus MEXICANUS* IN ITS STOMACH. BOTH WERE FEMALES. I BECAME.

A PINE GROVE, A LITTLE FARTHER DOWNSLOPE THAN THE CAMP, PRODUCED AN AMAZING VARIETY OF SALAMANDERS. ALL OF THE FOLLOWING WERE FOUND:

MARCH 3, 1949, (cont.)

SALAMANDERS - 1ST SPECIES - SAME AS ON ATUSCO, IN BAÑON CONTRERAS.

2ND SPECIES - LARGER THAN REST, A FAIRLY UNIFORM LIGHT BROWN, WITH AN IRREGULAR ROW OF SILVER FLECKS ALONG UPPER SIDE, ALMOST FORMING A GOOD DORSOLATERAL STRIPE. THE SIDES ARE THE SAME BROWN COLOR ABOUT HALFWAY DOWN, THEN THE SLIGHTLY DARKER BELLY COLOR GOES THE REST OF THE WAY AROUND. THE BROWN IS QUITE RICH, ~~ALSO~~ ALMOST A GOLDEN BROWN, OR COOL TAWNY.

3RD TYPE - THERE IS A STRONG DORSOLATERAL LINE SEPARATING THE BLACK OF THE SIDES FROM THE GREY OF THE BACK. THERE IS A FAINT BLACK VENTRAL LINE FOLKING IN THE NOSE, TO EACH EYE. THE BACK IS GREY WITH TINY FAINT REDDISH ORANGE FLECKING. THE SIDES ARE BLACK WITH MUCH SILVER FLECKING. THE FLECKING IS ABSENT ON THE BELLY, WHICH IS SLIGHTLY LIGHTER BLACK. THE CHIN IS FLECKED WITH SILVER.

4TH TYPE - THIS IS MUCH SIMILAR TO THE 2ND TYPE, BUT WITH A DORSOLATERAL LINE OF GOLD, MADE OF THICKLY CONCENTRATED FLECKS. THIS LINE IS BORDERED BELOW WITH BLACK, WHICH FADES RAPIDLY INTO A BLuish-GRAY BELLY. THE BACK IS ABOUT THE SAME BROWN AS IN THE 2ND TYPE.

ALL OF THESE WERE TAKEN IN A QUITE DRY PINE GROVE. ONE COULD BE CERTAIN THAT A SALAMANDER WOULD BE UNDER THE LOG, IF THERE WAS ANY SIGN OF DAMPNESS THERE. THE GROUND WAS HEAVILY COVERED WITH PINE NEEDLES. FALLEN LOGS WERE ~~VERY~~ ABUNDANT, SOME QUITE DRY, OTHERS DAMP, NONE WET. THERE WAS NO GROUND WATER THAT I COULD SEE. ALL KINDS OF SALAMANDERS LISTED WERE TAKEN IN THE SAME PLACE, AND USUALLY SEVERAL OF THEM UNDER THE SAME

LOGS, USUALLY. THERE WAS NO ECOLOGICAL SEPARATION OF THESE SPECIES OR INDIVIDUALS THAT I COULD SEE.

2 MEXICANS ARRIVED IN CAMP SHORTLY AFTER I, AND THEY HAD A BATTLE UNION, BY THEIR COUNT, CONTAINED 126 LIZARDS. WARNER & I COUNTED THEM, HOWEVER, AND THERE WERE 62 OF THEM, ALL OF THE SAME SPECIES. OF THESE WE DISCARDED 6 AS BEING TAILLESS, THEREFORE WE DON'T BUY THEM. I PRESERVED THE REMAINING 56.

MARCH 4, 1949 - COFRE DE PEROTE, 10,500 FT.

SPENT MOST OF THE MORNING WORKING ON THE SPECIMONS COLLECTED YESTERDAY. AS SOON AS I FINISHED I WENT UP THE COFRE, AS FAR AS THE VILLAGE OF LOS CONEJOS. ON THE NORTH SIDE OF THIS VILLAGE WAS ANOTHER PINE GROVE, WITH HEAVY NEEDLE COVER, AND SOME LOGS. I FOUND ONE SALAMANDER OF TYPE 2 UNDER A WOOD CHIP.

I FOUND A NEW TYPE OF SALAMANDER UNDER A LARGE LOG ALONGSIDE A VERY DRY, DUSTY ROAD. IT WAS NOT TOO DAMP UNDER THE LOG. IT WAS THE HIGHEST POINT AT WHICH I CAUGHT SALAMANDERS. IT IS ON THE SAME LEVEL AS THE VILLAGE OF LOS CONEJOS, WHICH I JUDGE IS ABOUT 10,500 FT.

TYPE 5: A JET BLACK SALAMANDER WITH A DORSOLATERAL ROW OF GOLDEN FLECKS. THESE FLECKS TERMINATE IN A YELLOW-GOLDEN PATCH JUST BEHIND THE "EAR". THE LEGS ARE ALSO BLACK, MOTTLED WITH LICHEN-LIKE SILVER PATCHES. THE HEAD IS ENTIRELY BLACK, WITH THE LIPS FLECKED WITH SILVER. THE BELLY, CHIN, AND BOTTOM HALF OF THE TAIL ARE INKY BLACK, WITH JUST 2 IN 3 LIGHT SILVER SPECKLES ON THE CHIN. THE SIDES ARE FLECKED WITH SILVER. THE DORSOLATERAL GOLDEN STRIPE CONTINUES ON THE TAIL TO THE TIP.

MARCH 5, 1949.

SPENT THE A.M. TRYING TO GET SOME MORE OF THE SALAMANDERS FROM HIGHER UP. THIS PLACE IS A PINE GROVE IN A FIR FOREST. THERE WERE Desmognathus desmognathi IN BOTH THE PINE & FIRS, BUT MOST OF THE OTHER SALAMANDERS WERE PRACTICALLY RESTRICTED TO THE PINE.

THE STRIPED SCORPIONS WERE PRETTY ABUNDANT IN THE FOREST. THE HARP-CALLING SCORPIONS WERE MUCH MORE ABUNDANT IN OPEN PLACES, BUT THEY WERE ALSO PRESENT IN THE WOODS.

I DIDN'T GET ANY MORE OF TYPE 5, BUT I DID PICK UP ANOTHER VERY OLD RING-SNEK (MOUNTAIN SNAKE). THAT ONE WAS UNDER AN EUCALYPTUS LOG, AND I PUT IT IN MY HAND AS I WAS GOING. THE LOGS WERE QUITE DAMP UNDERNEATH, BECAUSE OF THE DUST AND SCORPIONS WERE THICK ON THE P.

WE LEFT THE FIRS ABOUT 1:00 P.M., AND STARTED DOWN THE COFRE. THE FIRE RAN DOWN TO ABOUT 10,000 FT., THEN IT IS ENTIRELY PINE TO 8,500, WHERE THE GRASS BEGINS. ONLY SLOWLY BEGINS THIS ACTING IS THE PINE, HOWEVER, AND THE ORIGINAL PINE CAN ONLY BE GUESSED. THE PINE ARE PRESENT TO SOME DEGREE IN ALL THE PLACES I HAVE SEEN.

THE TEMPERATURE WHEN I GOT UP THIS A.M. (SUNRISE) WAS 30° F. I HAD ICE IN MY FINGER PANS. WHEN WE LEFT AT 1:00 P.M., IT WAS 62° F. IN THE SHAD AND 88° IN THE SUN.

MARCH 5, 1949. CERRAS DE PEROTE

TYPE 6: THIS SALAMANDER IS REMARKABLE FOR THE SLIMNESS OF ITS BODY, AND THE LONG, THIN LEGS. IT IS A UNICOLOR ANIMAL, BEING A GREYISH BROWN ALL OVER. THE LEGS ARE CONSIDERABLY LIGHTER THAN THE BODY.

MARCH 5, 1949, CAL VEGAS

WE WENT FROM CERRAS TO THE VILLAGE OF CAL VEGAS, AND THEN 2 MILES FURTHER DOWN THE HIGHWAY INTO A LARGE PRAIRIE - A LAVA FLOWING LIKE SOLIDIFIED & COOLED.

BEFORE WE GOT LOCATED AND SETTLED THERE I DECIDED TO GO AND SEE THE EVERGLADES BY THE SALAMANDERS GOTTEN THAT MORNING.

MARCH 6, 1949 - CAL VEGAS

I STARTED OPERATING THIS MORNING OUT A SMALL HILL WHICH HAD DIVIDED THE LAVA FLOW, AND WAS NOW AN ISLET, BEING AS AN ISOLATED ISLAND. I WENT NEARBY & LOGS BEFORE I FOUND A CANOPUS, DEEP IN THE ^{ROOT} OF THE LOG. IT WAS VERY PLACID, AND MADE NO ATTEMPT TO BITE, BUT DID TRY TO BARK. I FOUND ONE OF THE STRIPED SCORPIONS UNDER ANOTHER LOG. THE LOGS ALL I FOUND IN THE AREA WERE THE LAVA FLOW. THE TREES IN THE AREA WERE HEAVILY COVERED WITH BRACKEN, ALL OF WHICH I CUT, & I SPENT 2 HOURS TRYING TO FIND A PLACE WHERE I COULD FIND A SINGLE TREE. MY EXPERIENCE WITH SCORPIONS IS THAT IT IS BETTER TO BE IN A PLACE WHERE THERE IS NO CONSTANT PRESENCE.

THE LAVA FLOW CAME DOWN A SMALL VALLEY, & THE LAVA FLOW WAS NOT AFTER THE LAVA FLOW.

IN THE EVENING, I WENT OVER TO THE LAVA FLOW, & FOUND A SCORPION & 2 OTHER SCORPIONS UNDER LOGS. THE SCORPIONS WERE NOT AT ALL LIKE THE SCORPIONS I HAD FOUND IN THE LAVA FLOW.

MARCH 7, 1949

WE WENT FROM CAL VEGAS TO THE RIVER. THE RIVER WAS NOT AS HIGH AS IT WAS IN THE PAST. IT IS IN THE RIVER, & THE RIVER HAS CUT QUITE DEEPLY. THESE

DEEP CUTS HAVE WATER, USUALLY, AND QUITE OFTEN VERDANT VEGETATION. BANANAS ARE GROWN IN THE VALLEYS. THE RIVERS ARE Limestone, AND THE HIGHER AREAS ARE VERY DRY, WITH CALT AND SO ON.

I WENT DIRECTLY TO BAHAMA GARDEN AT THE FOOT OF THE HILL & CONSIDERED CAMP IN THE P.M. I SAW SEVERAL SCORPIONS VARIABILIS ON THE DUSTY Limestone PATH DOWN WHICH I COULDN'T CATCH. THE GROVE WAS FULL OF FALLEN BANANA TREE BOLES, AND WITH GOOD SIZED Limestone ROCKS. ONE OF THE FIRST ROCKS TURNED PRODUCED 3 BUFOES AND A FRAG I THINK WAS AN ELECTRODACTYLUS - QUITE SMALL. THE BUFOES FOLLOWED A HUGE TARANTULA DOWN A SHORT ARROW, BUT THEY CAME OUT FAIRLY RAPIDLY. NEXT I FOUND A LARGE FAT NYLA UNDER A BANANA BOLE, IN A HOLLOWED OUT SPOT. HE GAVE QUITE A SCREAM AS I PICKED HIM UP.

I WALKED ACROSS THE GROVE TO A SMALL SPRING ON THE OPPOSITE SIDE OF THE VALLEY, ALSO Limestone, AND QUITE DENSE WITH VEGETATION. ROCKS IN THE IMMEDIATE VICINITY OF THE SPRING PRODUCED 2 RHADINAE, 1 OEDIPOUS (FOR LACK OF A BETTER NAME), AND A VERY LARGE Cnemidophorus. I DIDN'T GET THE CATERN. ANOTHER OF THE SMALL ELEPHAS WAS UNDER A ROCK HERE.

MARCH 8, 1949. ~~LA VEGA~~ PLAN DEL RIO (CONT.)

I ALSO SAW A *LEGIOLUPISMA* THAT ESCAPED ME.

THIS EVENING, AFTER SUPPER, I HEARD BUFO OF SOME SPECIES CALLING VERY LOUDLY DOWN THE HILL. I TOOK THE FLASH AND WENT DOWN, BUT THEY WERE IN TERRAIN COMPLETELY UNKNOWN TO ME, SO I COULD NOT FIND THEM. I CAUGHT A STRING OF FISH FOR BAILEY, AND RETURNED TO CAMP. MAC SAID HE KNEW HOW TO REACH THE POND I WANTED, SO WE WENT BACK AGAIN. HE TOOK ME TO THE DAM, BUT THERE WAS NOTHING THERE. I THEN FOLLOWED THE CATTLE BACK ROUNDS, THEN HAD TO WAIT A BIT. I HEARD A NEW CALL WHILE WAITING - IT SOUNDED EXACTLY LIKE THE QUACKING OF DUCKS. IT STARTS SLOWLY AND PICKS UP SPEED TOWARD THE END. I FOLLOWED IT TO SEE WHAT IT WAS, AND FOUND A RATHER SLOW FLOWING SECTION OF THE STREAM. THIS SMALL POND HAD BEEN THE BUFO'S AND THE QUACKERS IN IT. I FINALLY RAN DOWN THE QUACKS, AND IT TURNED OUT TO BE A *HYLA* - AND I AM CERTAIN IT IS *BRUDINII*. I GOT ONE CLASPING PAIR, AND I FOUND EGGS DEPOSITED IN THE SACK THE NEXT DAY - TWO MASSES. THEREFORE, *HYLA BRUDINII* BREEDS IN THE EARLY PART OF MARCH - AT LEAST IN THIS LOCALITY. I GOT 5 OF THEM.

I ALSO FINALLY GOT SOME OF THE BUFO. THEY LOOK MUCH LIKE *COMOALTIUS* TO ME. THEIR CALL IS TO ALL INTENT AND PURPOSES EXACTLY THE SAME AS THAT OF *B. AMERICANUS*, I COULD DETECT NO DIFFERENCE.

MACINTOSH SAW A SNAKE WHICH WAS NEAR THE WATER, BUT WE COULDN'T GET IT. IT MUST HAVE BEEN A *GEOPHIS* FROM THE DESCRIPTION, A GOOD SIZED RANA CARRIED ON A GUTTURAL CONVERSATION ALL EVENING, BUT WE COULDN'T GET ANY.

MARCH 8, 1949, PLAN DEL RIO.

SPENT THE MORNING COLLECTING LIZARDS WITH A 2 DUST SHOT. COLLECTED A DOZEN OR SO. BOTH *CNEMIDOPHORUS* AND *SCeloporus* WERE ABUNDANT IN THE LIMESTONE HILLS, IN VERY DRY PLACES. THERE WERE MANY ON THE FLAT PLAIN OR PRAIRIE AREAS, BUT MORE WERE ON THE SLOPES, WHERE THE BOULDERS FORM LARGE CREVICES, AND THE SUN DOESN'T SHINE QUITE SO BRIGHTLY AND ISN'T SO HOT. I SAW A VERY LARGE LIZARD WHICH SURVED TOO FAR AHEAD OF ME TO GET A SHOT AT IT, THAT GOT UP ON ITS HIND LEGS AND RAN, BIPEDALLY. IT WAS MARKED LIKE AN *AMEIVA* (OR *CNEM*), ALTHOUGH I'VE NEVER HEARD OF BIPEDAL LOCOMOTION IN THESE GENERA. THE *SCeloporus* ARE ALWAYS QUICK MOVING AND MAKE SAGRT DASHES, MOVING RAPIDLY AND STOPPING. (THEY ARE ALL *S. VARIABILIS* HERE, I BELIEVE). THE *CNEMIDOPHORUS*, ON THE OTHER HAND, ARE SLOWER, AND ARE ALMOST CONSTANTLY IN MOTION, CRAWLING DELIBERATELY, APPARENTLY ON THE HUNT. THEY DRAG THEIR TAILS BEHIND THEM, WHILE THE *SCeloporus* LIFT THE TAIL HIGH WHILE MOVING. *CNEMIDOPHORUS* IS VERY SNAKELIKE IN ITS MOVEMENTS.

WE RETURNED TO THE SPRING I FOUND SO PRODUCTIVE YESTERDAY TO BATH, AND I TURNED THE ROCK AGAIN WHICH HAD SHELTERED THE LARGE *CNEMIDOPHORUS* (ALL REFERENCES TO THIS FENCE AT THIS COLLECTION POINT MAY BE REFERRABLE TO *AMEIVA*). HE WAS BACK THERE, AND THIS TIME HE SCUTTLED OFF UP THE LIMESTONE SLOPE. I SHOT HIM EASILY. IT WAS DEFINITELY THE SAME BEAST, AS I HAD PULLED HIS TAIL OVER THE DAY BEFORE IN A DEEP CREVICE.

WE DROVE FROM HERE TO A NEW ROAD TO HUATUSCO, UNLESS WE TOOK TO CORO CORDOBA. THE DISTANCE TO HUATUSCO WAS THEN A VERY DRY, PLAINLIKE, LOW AREA, WITH CACTI AND PEPERALS THERE AGAIN. WE CLIMBED UP TO HUATUSCO AND

MARCH 8, 1949, CONT.

FOUND HEAVY FOREST AND BANANA, COFFEE AND TOBACCO PLANTATIONS. THIS DRIVE IS THROUGH BREATHTAKING COUNTRY, WITH DEEP CANYONS AND LUSH TROPICAL FORESTS. I COULD CALL IT HUMID TROPICAL FOREST, MYSELF.

WE DROVE TO PATRERO VIEJO TO THE FORDS HOUSE AND NEXT. FORD'S DAUGHTER (MARILYN?) TOOK ME TO A SPOT WHERE HYLA VENULOSA ABUNDANT. THEY LIVE IN THE VERY MOIST BASES OF BANANA TREE BUNCHES. THE TREES GROW IN WHAPAROUND LAYERS, AND CATCH WATER AND HOLD MUCH MOISTURE. THE FISHES ARE DEEP WITHIN THESE LAYERS, AND ARE SOMETIMES, IN OLD TREES, WAY INTO THE MUPY CREEK. WE TOOK NING WITH NO TROUBLE. WALTER DANQUIST TOOK ME NEXT TO THE REAR OF THE HACIENDA TO A LARGE PLANT HE CALLED "ELEPHANT EAR". THE PLANT CONSISTS OF LONG PETIOLED, ENORMOUS LEAVES, ALL FROM A CENTRAL LOW BASE. HERE AGAIN THE PETIOLES FORM A CNOTE WHICH FUNNELS WATER TO THE BASE WHERE IT IS STORED. DANQUIST EXPECTED TO FIND SOME HYLA MICROSYMPTOMA HERE FOR ME, HAVING FOUND THEM THERE BEFORE. BUT WE FOUND 3 HYLA UNKNOWN TO HIM, AND ANOTHER H. VENULOSA.

WE LUNCHEDED WITH THE FORDS, AND DROVE TO A CAMPING SPOT 8 KM. ENE OF PATRERO VIEJO ^{1700 FT.} (DATA FROM DANQUIST) CALLED OTTO DE AGUA. THIS WAS A SHARP HILLSIDE NEAR LARGE SUGAR CANE FIELDS. THE HILL WAS COVERED WITH DENSE JUNGLE GROWTH, MORE HUMID TROPICAL FOREST. WE COLLECTED 3 ANOLIS (SAGREDO?) AND A LEIOPUSIA BEFORE DARK. I SPENT THE EVENING FINISHING THE SPECIMENS FROM PLAN DE RIO, AND COULD DO NO NIGHT COLLECTING.

THE ANOLIS HAVE A BRILLIANT ORANGE DORSAL WHICH THEY EXPAND AND CONTRACT AS THEY SIT ON BUSHES IN THE JUNGLE TRAILS. THEY HAVE A DEFINITE DORSAL PATTERN OF ORANGE, WHICH APPEARS AND DISAPPEARS EASILY, HOWEVER.

MARCH 8, 1949 - PATRERO VIEJO, CONT.

THE LEIOPUSIA WAS IN A HEAVY ROCK SLOPE, DEEP IN THE ROCKS. I SHOT HIM TO GET HIM.

MARCH 9, 1949. PATRERO VIEJO.

HEAVY RAIN THIS MORNING. I HAD TO STAY IN CAMP WHILE THE MAMMALOGISTS PICKED UP THEIR TRAPS, AND THEY DIDN'T SILENCE WHEN THEY GOT BACK, SO I HAD LITTLE TIME FOR COLLECTING. I WENT AFTER SOME BROMELIADS I HAD SEEN ALONG THE TRAIL THE NIGHT BEFORE, AND I HAD TIME TO TAKE A SPAT BEFORE I LEFT AT THE NOON OF THE TRUCK'S HOUR. EACH OF THE BROMELIADS PRODUCED A SALAMANDER. MARILYN BROUGHT IN A HYLA HE FOUND IN A SMALL HOLE INSIDE THE CAVE WHICH IS THE SOURCE OF THE RIVER.

THE SALAMANDERS WERE QUITE DIFFERENT IN COLORATION WHEN COLLECTED. THE SMALL ONE WAS LIGHT GREY DORSALLY, WITH ~~THE~~ BROWNISH GRAY SIDES. THE LARGER ONE WAS DULL REDDISH ABOVE WITH DARK BROWN SIDES. I CARRIED THEM ALIVE IN A VIAL, HOWEVER, AND A FEW HOURS LATER THE ~~THE~~ SMALL ONE HAD CHANGED COLOR UNTIL HE CLOSELY RESEMBLED THE LARGER ONE. A FEW HOURS LATER THE LARGER ONE WAS CLOSE TO THE ORIGINAL COLOR OF THE SMALLER. THIS RANGE OF COLOR VARIABILITY IS SURPRISING, TO SAY THE LEAST, AND I'M TRYING TO GET COLOR PICTURES OF IT.

MARCH 10-13 - MEXICO CITY.

MARCH 14, NEVADA DE TOLUCA.

WE DROVE UP TOLUCA IN THE AFTERNOON, LEAVING M.C. ABOUT 11 A.M. THE ROAD CLIMBS THE MOUNTAIN RASH

THE WEST. THE ROAD IS QUITE GOOD, AND RUNS TO THE LAKE IN THE CRATER. TREE LINE IS AT 13,000 FT., AND I COLLECTED A SCOLOPORUS MICROLEPIDOTUS UNDER A LOG RIGHT AT TREE LINE. WE WENT BACK DOWN HILL TO 13,200 FT. TO CAMP. THERE WERE SEVERAL SPRINGS IN AN ALPINE MEADOW AND A GOOD SIZED ~~STREAM~~ CREEK. A ROCK IN THE MIDDLE OF THE STREAM COVERED TWO AMBYSTOMA, WHICH I COLLECTED. FARTHER DOWN THE STREAM A ROAD BRIDGE HAD DROPPED IN AND CREATED A POND, TO WHICH I RETURNED IN THE EVENING, TO FIND MANY AMBYSTOMA ACTIVE. IT APPEARED TO BE A BREEDING CONGREGATION, AND I TOOK MANY NOTES ON THE GROUP. ALL SPECIMENS COLLECTED SEEMED TO BE MALES, HOWEVER, WITH GREATLY SWOLLEN ANAL CIPS. SEVERAL DEPOSITED SPERMATOPHORES AFTER BEING PUT IN PRESERVATIVE. COMPLETE NOTES ON MY OBSERVATIONS ARE ELSEWHERE; UNDER THE SPECIES.

~~THE~~

MARCH 15, 1949, TOLUCA.

FOUND 3 S. MICROLEPIDOTUS UNDER A SINGLE PIECE OF BARK ON A FALLEN LOG ON A HILLSIDE, AT 13,200. THE REST OF THE DAY WAS SPENT IN OBSERVATION OF THE SALAMANDERS IN THE POND. THE EVENING WAS QUITE COLD, AND THE POND FROSE SOLIDLY DURING THE NIGHT. MY THERMOMETER REGISTERED 22° AT 7:00 AM MARCH 16. THE SALAMANDER ACTIVITY STOPPED AT ABOUT 11:00 AM., BECAUSE OF THE COLD.

MARCH 16, TOLUCA.

WE LEFT THE CAMP SITE VERY EARLY, AND DROPPED DOWN TO 11,500 FT. I GOT A LARGE SERIES OF SCOLOPORUS HERE, ON THE ABUNDANT FALLEN LOGS. IT WAS STILL IN THE PINES HERE. I GOT MICROLEPIDOTUS CHIEFLY, WITH SOME AENEUS.

MARCH 17, CERRO SAN ANDRÉS, MICHOACÁN.

SPENT THE NIGHT OF 16TH IN CIUDAD HIDALGO, AND DROVE ON TO THIS SHORT CHAIN OF PEAKS. THE ROAD IS 4 MILES WEST OF HIDALGO, TURN LEFT AND FOLLOW ROAD TO SAN PEDRO (DE AGUIRRE, OR SOMETHING SIMILAR), WHICH IS TWO MILES FURTHER, ON THE DIRT ROAD. OUR CAMP IS FURTHER ALONG THE SAME ROAD, 9 MILES ON. THE SMALL VILLAGE CALLED RANCHO DE AXOLTL IS JUST OVER THE HILL FROM OUR CAMP. WE DROVE ON A CONSIDERABLE DISTANCE FURTHER TO A GOOD SIZED LAKE, CALLED LAGUNA RANCA, AT 9,200 FT. THE LAKE IS ARTIFICIAL, THE RESULT OF DAMMING A SMALL STREAM BETWEEN TWO MOUNTAINS. I COLLECTED RANA PIRENE, SCOLOPORUS MICROLEPIDOTUS AND AN AMBYSTOMA ON ITS SHORES. DROVE WITH McVAUGH TO A LARGE SULPHUR LAKE, FULL OF BOILING MOORS. IT LOOKED LIKE A MUDDY MESS, BUT THE WATER WAS NOT STICKY AT ALL. A BURNHOLE NEAR THE LAKE WAS RIGHT AT BOILING, AND HAD BEEN USED OFTEN TO SCALD FEATHERS OF CHICKENS. I CAUGHT 2 OFFSPRING ON A HILLSIDE IN A COLD SPRING.

IT STOPPED WHILE McVAUGH TOOK SOME SPECIMENS OF CAECALIA "THE CHERRY HENS", NOTED ME A HYLA WHICH IS EITHER AMPHIBIUM OR EXIMIA. I THINK I HAVE SEVERAL OF THE 1ST FROM HERE. THERE WAS LITTLE WATER HERE, BUT AN ALMOST DRY SPRING DISPERSED THE AREA SLIGHTLY. I ALSO PICKED UP A SCOLOPORUS HERE. HYLA DESCRIBED ON NEXT PAGE.

MARCH 18, 1949. CERRO SAN ANDRÉS.

FOLLOWED A STREAM WHICH EMPTIES INTO THE ALPINE MEADOWS IN WHICH WE ARE CAMPED UPSTREAM. FOUND AMBYSTOMA ORDINARIUM, RANA PIRENE AND S. MICROLEPIDOTUS ALONG ~~THE~~ ^{AND IN} THE STREAM.

MARCH 17, 1949 - CERRO SAN ANDRES.

WENT TO LAKE BEHIND PRESERVATION (HYLA LOFENTZII)
 FOUND A DAMP LOGS BANK WITH IN JACKS. THE ENTIRE
 BANK WAS A SHINY, SILVER IN THE EVENING. THE
 BANK WAS 12 FEET HIGH. THE SIDE STRIPS WERE
 GREEN. THE DORSAL STRIPS WERE FINE AND TOSS IS QUITE
 GOLDEN COLORED OR BRASSY.

MARCH 19, 1949 - CERRO SAN ANDRES.

DROVE TO TOWN FOR SUPPLIES WITH McVAUGH, SO THAT
 I COULD COLLECT LOWER DOWN. AFTER GOING TO TOWN
 WE WENT BACK UP THE MOUNTAIN TO A STREAM AT 7800
 FEET. CHIEFLY PINE, WITH SOME OAKS. FLOOR WAS REGULARLY
 COVERED WITH PINE NEEDLES, AND THERE WERE QUITE A
 FEW ROCKS ON THE SLOPE. TURNING ROCKS PRODUCED A
 COMPOUND. McVAUGH COLLECTED A SALICODORA BAIRDII AND
 A HYLA BISTINCTA FOR ME ON THE SLOPE. I CAUGHT ANOTHER
 OF THE SMALL HYLA, WHICH ARE EITHER LOFENTZII OR EXIMIA.
 THE IRISH LEG HAS THE T.T. AND T. TO THE EYES, BUT THEY ARE COLORED
 EXACTLY AS THE LOFENTZII FROM THE D.F.

MARCH 20, 1949 - CERRO SAN ANDRES.

WORKED UP THE CANYON BEHIND THE CAMP. THIS CANYON
 IS QUITE DAMP, AND WELL SUPPLIED WITH SPRINGS. THERE
 IS A FAIRLY DEEP STREAM IN IT, FLOWING RAPIDLY. SOME OF
 THE SPRINGS ARE QUITE HOT, PRACTICALLY BOILING AS IT
 COMES OUT. RANA PIPIENS IS VERY ABUNDANT IN THE
 STREAM, AND THERE ARE MANY TADPOLES IN THE STREAM.
 THERE ARE NO AXOLOTLIS IN IT, HOWEVER. I GOT A SERIES
 OF 21 HYLA - AGAIN THE LOFENTZII-EXIMIA THING. THEY
 WERE ALL UNDER BANK ON DAMP LOGS LYING ALONG AND

MARCH 20, 1949, CONT.

ACROSS THE STREAM. THERE WERE SEVERAL TIMES 3, 4
 OR 5 UNDER A SINGLE PIECE OF BARK.

TOLD AN INDIAN BOY I WANTED SOME AXOLOTLIS FROM
 THE LAKE AT THE RANCHO, AND HE BROUGHT IN 37 SOLID AXOLOTLIS
 AND 4 FROGS. HE SAID THEY CAME FROM THE LAKE. THEY WERE
 ALL TRANSFORMED BUT ONE.

MARCH 21, 1949 - CERRO SAN ANDRES.

WENT TO THE LAKE TO CHECK ON THE BOY. FOUND THAT
 HE HAD GOTTEN THE AXOLOTLIS BY TURNING OVER ROCKS AND
 LOGS AT THE EDGE OF THE LAKES THERE, NOT IN THE WATER.

THE AXOLOTLIS THERE UNDER LOGS, AS MUCH AS
 100. I ALSO GOT PSEUDONYCTOPHIS BELLII
 WHICH VARY MUCH IN COLOR,
 SOME ARE LIBERALLY
 ARE QUITE ABUNDANT THERE.
 ALSO, I TOOK SEVERAL FROM
 TWO LAKES. THE SECOND
 WHICH MAY BE A FACTOR IN
 PIPIENS TADS, AND A MUCH
 ALONG THE STREAM AND IN

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O.R.

LAKE PATZCUARO.

UNDER A ROCK AT PATZCUARO.

ALL THE OTHERS HAVE BEEN

MARCH 17, 1949 - CERRO SAN ANDRES.

WENT TO THE BEHIND PRESERVATION (NYLA LAURENTI)
 FOLLOWING A ROAD LEADING FROM THE BACK. THE ENTIRE
 MOUNTAIN AREA IS COVERED, SAVING THE OLYMPIC GROUND TRAIL. THE
 FOREST IS MOSTLY PINE, THE SIDE SLOPES ARE BROWNISH-
 GREEN. THE DIAGONAL LINE OF THE FINGERS AND TOES IS QUITE
 GOLDEN COLORED - OR BRONZE.

MARCH 19, 1949 - CERRO SAN ANDRES.

DROVE TO TOWN FOR SUPPLIES WITH McVAUGH, SO THAT
 I COULD COLLECT LOWER DOWN. AFTER GOING TO TOWN
 WE WENT BACK UP THE MOUNTAIN TO A STREAM AT 7800
 FEET. CHIEFLY PINE, WITH SOME OAKS. FLOOR WAS HEAVILY
 COVERED WITH PINE NEEDLES, AND THERE WERE QUITE A
 FEW ROCKS ON THE SLOPE. TURNING ROCKS PRODUCED A
 CONOPSIS. McVAUGH COLLECTED A SALVADORA BAIARDII AND
 A NYLA BISTINCTA FOR ME ON THE SLOPES. I CAUGHT ANOTHER
 OF THE SMALL NYLA, WHICH ARE EITHER LAURENTI OR EXIMIA.
 THE HIND LEG HAS THE TIT. ANT. TO THE EYE, BUT THEY ARE COLORED
 EXACTLY AS THE LAURENTI FROM THE D.F.

MARCH 20, 1949 - CERRO SAN ANDRES.

WORKED UP THE CANYON BEHIND THE CAMP. THIS CANYON
 IS QUITE DAMP, AND WELL SUPPLIED WITH SPRINGS. THERE
 IS A FAIRLY DEEP STREAM IN IT, FLOWING RAPIDLY. SOME OF
 THE SPRINGS ARE QUITE HOT, PRACTICALLY BOILING AS IT
 COMES OUT. RANA PIPIENS IS VERY ABUNDANT IN THE
 STREAM, AND THERE ARE MANY INDIVIDUALS IN THE STREAM.
 THERE ARE NO AXOLOTLIS IN IT, HOWEVER. I GOT A SERIES
 OF 21 NYLA - AGAIN THE LAURENTI-EXIMIA THING. THEY
 WERE ALL UNDER DARK OR DAMP LOGS LYING ALONG AND

MARCH 20, 1949, CONT.

ACROSS THE STREAM. THERE WERE SEVERAL TIMES 3, 4
 OR 5 UNDER A SINGLE PIECE OF BARK.

TOLD AN INDIAN BOY I WANTED SOME AXOLOTLIS FROM
 THE LAKE AT THE RANCHO, AND HE BROUGHT IN 37 SOLDANIELS
 AND 4 FROGS. HE SAID THEY CAME FROM THE LAKE. THEY WERE
 ALL TRANSFORMED BUT ONE.

MARCH 21, 1949 - CERRO SAN ANDRES.

WENT TO THE LAKE TO CHECK ON THE BOY. FOUND THAT
 HE HAD GOTTEN THE AMIBYSTOMA BY TURNING OVER ROCKS AND
 LOGS AT THE EDGE OF THE LAKES THERE, NOT IN THE WATER.
 I GOT AN EXTRA SERIES THERE UNDER LOGS, AS MUCH AS
 300 YDS FROM THE WATER. I ALSO GOT PSEUDONYCTEA DECELI
 UNDER THE LOGS. THE AMIBYSTOMA VARY MUCH IN COLOR,
 SOME PRACTICALLY BLACK YELLOW, OTHER ARE LIBERALLY
 SPOTTED WITH YELLOW. THEY ARE QUITE ABUNDANT THERE.
 THERE ARE AXOLOTLIS THERE ALSO, I TOOK SEVERAL FROM
 THE STREAM BETWEEN THE TWO LAKES. THE SECOND
 LAKE IS RAPIDLY DRYING UP WHICH MAY BE A FACTOR IN
 TRANSFORMATION. PIPENS, PIPENS TADS, AND A MUCH
 LARGER TAD WERE PLENTIFUL ALONG THE STREAM AND IN
 THE LAKE.

MARCH 22, 1949 - ENROUTE.

PICKED UP A PITUDONIS D.O.R.

STOPPED FOR NIGHT AT LAKE PATZCUARO.

MARCH 23, 1949 - ENROUTE.

COLLECTED A CONOPSIS UNDER A ROCK AT PATZCUARO.
 HE WAS QUITE BROWN, WHILE ALL THE OTHERS HAVE BEEN
 GRAY.

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MARCH 23, 1949 - CONT.

DROVE TO CIUDAD GUZMAN, TURNING OFF THE HIGHWAY SOMEWHAT SHORT OF THE HIGHWAY TO ATITLAN. THE ROAD RUNS PAST TWO VAST DRY LAKES, ONE ALMOST IMMEDIATELY OFF THE MAIN HIGHWAY TO GUADALAJARA. THERE IS A SHORT STRETCH OF MOUNTAIN ROAD BEFORE WE CAME DOWN INTO THE FLAT. WE STAYED LOW PAST A SECOND DRY LAKE AND SAYULA, THEN CLIMBED A LOW RANGE OF MTS TO GUZMAN. WE OVERNIGHTED IN GUZMAN. (HOTEL ANGUIANO - THE WORST YET).

MARCH 24, 1949 - NEVADO DE COLIMA.

THE ROAD TO THE MOUNTAIN IS THE FIRST TO THE RIGHT FROM THE SW CORNER OF THE PLAZA IN GUZMAN. IT FOLLOWS AN OLD DRY CARRIED (PROBABLY FLOODED IN THE RAINY SEASON) TO THE HILLS. OUR CAMP SITE IS ON THE NW SLOPE OF THE MOUNTAIN, WITH THE PEAK NOT VISIBLE. IT IS SHOT OFF BY A LONG HIGH ESCARPMENT. THE ROAD PASSES THROUGH SAYAYULA AND TASMEN TO EL ISOLTE AND ENDS THERE AT AN OLD SAWMILL. WATER FOR THE TOWN MUST COME DOWN FROM HIGH IN THE MOUNTAIN VIA AN AQUEDUCT MADE OF HOLLOWED LOGS. THIS IS OUR H₂O SUPPLY THERE. HERE. DR. McVAUGH CAUGHT AN *RENEUS* FOR ME ABOUT 7600 FT., ON THE ROAD UP. GOT 2 *CUMECES* AND A *SCELUS MICRO*. AT THE OLD MILL. WE MADE CAMP IN THE DIRTIEST, DRIEST SPOT YET.

MARCH 25, 1949 - NEVADO DE COLIMA.

SPENT THE WHOLE DAY WORKING UP AND DOWN HILLSIDES AND CANYONS, TURNING LOGS AND RIPPING BARK. GOT TWO *SCELUS MICRO*. THIS IS THE DRY SEASON HERE WITH A VENGEANCE. THERE IS NO DAMPNESS ANYWHERE. I WORKED JUST AS HARD IF NOT HARDER HERE THAN ANYPLACE YET, BUT

MARCH 25 - 1949, CONT.

GOT NOTHING. THERE WAS NO "LITTLE RAINY SEASON" HERE THIS YEAR - NO RAIN IN JANUARY - AND THE RESULT IS NOTHING STARTLING.

MARCH 26, 1949 - NEVADO DE COLIMA.

WENT UP THE AQUEDUCT WHICH SUPPLIES THIS WHOLE AREA WITH WATER TO ITS SOURCE. THIS IS ABOUT 1500 FT. HIGH AND ABOUT 2 MILES SE OF EL ISOLTE. THE WATER IS CROUST ALMOST IMMEDIATELY AFTER FLOWING OUT OF THE GROUND AND DIPPED AWAY, SO THIS IS JUST AS DRY AN AREA AS THE REST OF THE MOUNTAIN. I CAUGHT ONE *PSEUDOSQUAMIA BELLII* TO PROVE I PUT IN A DAY'S WORK. HE WAS UNDER A LOG VERY NEAR THE AQUEDUCT. THE AREA IMMEDIATELY ABOUT THE ^{SPRING} ~~stream~~ IS ENTERABLE ONLY BY LADDER, AND IS NOT GRAZED BY CATTLE. URTICA, THE NETTLE, IS ABUNDANT AND PAINFUL. HELMUT SAYS HE HAS NEVER HIT IT IN MEXICO BEFORE THIS. THE GRASS IS HIGH AND QUITE GREEN, AND BUSHES ARE NUMEROUS AND LARGE. IT WAS STILL TOO DRY FOR ME, HOWEVER.

MARCH 27, 1949 - NEVADO DE COLIMA.

TRIED BROMELIAD COLLECTING TODAY, AFTER GETTING ANOTHER *BELLII* UNDER A LOG IN A DEEP CANYON. THIS SPECIES IS APPARENTLY INURED TO DRYING, AND CAN STAND MUCH MORE OF IT THAN ANY OTHER SPECIES I'VE SEEN DOWN HERE. THE BROMELIADS PRODUCED NOTHING. THEY SEEM TO BE QUITE SPECIFIC IN THEIR CHOICE OF HOST TREE, BEING CONFINED TO OAKS, AND POSSIBLY TO ONE SPECIES OF THEM. THEY DON'T GROW ON PINES OR EUCALYPTUS AT ALL. THE BROMELIADS ARE QUITE DRY, WITH NO REAL POORS, JUST MOISTURE AT THE BOTTOMS OF THE LEAVES.

MARCH 28, 1949 - NEVADO DE COUMA.

TURNER LOGS AND TONG UP BROMELIADS ALL DAY WITHOUT LUCK AT ALL. A COMPLETE BLANK. WENT DOWN TO ABOUT 7000 FT., BUT FOUND NO WATER OR LESSENING OF THE DRYNESS. THERE IS MUCH COVER HERE, AND THE LIFE IS PROBABLY TREMENDOUS IN THE RAINY SEASON. THE BIRD LIFE IS ABUNDANT EVEN NOW, WITH MORE SPECIES THAN I HAVE NOTICED BEFORE ELSEWHERE.

MARCH 29, 1949 - SAN GABRIEL, TAUISCO, 4000 FT.

DROVE FROM EL ISCOTE TO THE MAIN ROAD TO TOLIMAN, AND FOLLOWED IT TO TASHIN, AND WEST. A FORK IN THE ROAD TOOK US IN THE WRONG DIRECTION (JUST WEST OF TASHIN, NEAR VOLCANO, LEFT TO TOLIMAN, RIGHT TO SAN GABRIEL). WE LEARNED OF SAN GABRIEL AND DROVE HERE INSTEAD OF TO TOLIMAN, AS PLANNED. DROVE NORTHEAST OF THE VILLAGE, WHICH IS IN A TERRIFICALLY PARCHED, DRY AND DUSTY VALLEY BETWEEN THE RANGES OF THE NEVADO DE COUMA & THE NEXT RANGE WEST, FOR THE MASTOS TO SET TRAPS. I WORKED OVER A ROCKY HILLSIDE WHICH IS ALMOST DEFINITELY A HIBERNATION SITE, AND WOULD PROBABLY BE A GOLD MINE DURING THE FIRST RAINS. THERE ARE MANY ROCK OUTCROPPINGS WITH CREVICES RUNNING DEEPLY BENEATH. I FOUND SEVERAL DIED SKINS OF CONOPSIS OR TOLUCA SIZE UNDER ROCKS. HOOPER SAW A SMALL BROWN SNAKE ~~UNDER A ROCK~~ WHICH HE COULDN'T CATCH.

ON THE WAY BACK TO TOWN WE STOPPED BY A SMALL WATER HOLE, ORIGINALLY ABOUT 15-20 FEET WIDE, NOW SHRUNK TO A SHALLOW POOL ABOUT 3 INCHES DEEP AND 4-5 FEET WIDE. I FOUND 2 SCALOPOIDS UNDER ROCKS, AND A VERY LARGE ROCK NEAR THE POOL COVERED

MARCH 29 - CONT.

A VERY DORMANT YOUNG KINOSTERNON. HE WAS VIRTUALLY IN AND PAINT OUT OF A SMALL HOLE WELL UNDER THE ROCK. HIS EYES WERE COMPLETELY SEALED SHUT. HELMUT RETURNED, AND WE DROVE TO TOWN.

MARCH 30, 1949 - SAN GABRIEL, TAUISCO, 4000 FT.

WENT OUT WITH THE MASTOS TO TRAP LOCALITY, WHICH WAS ON THE HILLSIDE MENTIONED YESTERDAY, AND TURNED ROCKS IN THE EARLY MORNING. GOT 2 SCALOPOIDS AND A GOOD SIZED CNEMIDOPHORUS, ALL UNDER ROCKS ON THE EDGE OF A CORN FIELD.

WHEN WE GOT BACK TO TOWN, I WENT WEST ALONG THE SMALL STREAM WHICH SUPPLIES THE TOWN'S H₂O. IT IS A FAIRLY RAPIDLY FLOWING STREAM, WHICH OCCASIONALLY FORMS A GOOD SIZED POOL WITH QUIET WATER. THE FIRST ROCK I TURNED PRODUCED A BATCH OF BUFO, ALL RECENTLY TRANSFORMED. THE FIRST ROCK HAD 12. THE NEXT BIG ROCK HAD 13, THE NEXT 15, AND ONE 18. I GOT A SERIES IMMEDIATELY AND STOPPED COLLECTING THEM. THE STREAM IS FULL OF TADPOLES. THE ROCK WALLS WHICH MARK THE HACIENDA BOUNDARIES ON BOTH SIDES OF THE STREAM WERE LIBERALLY SUPPLIED WITH LIZARDS, CNEMIDOPHORUS, SCALOPOIDS AND ANOLES. I SAW NONE OF THE IGUANA WHICH THE LOCAL PEOPLE SAY ARE COMMON HERE. I GOT A SCALOP & NO CNEMIDOPHORUS. I ENTERED A SMALL BANANA GROVE AND FOUND A HYLA IN THE BASE OF ~~THE~~ A LEAF FROND, BUT COULD FIND NO MORE THAN ONE.

TOOK THE GUN AND ~~SETTLE~~ ^{DIPNET} IN THE P.M., AND SHOT 2 ANOLES, A SCALOP & A CNEMIDOPHORUS. DIPPED OUT A FISH COLLECTION AND A BATCH OF TADPOLES.

MARCH 30, CONT.

I HAVE SEEN THE *CNEMIDOPHORUS* HERE RUN ON THEIR HIND LEGS ALONE SEVERAL TIMES. THE BODY IS NOT LIFTED HIGH, HOWEVER - THE FORELEGS ARE JUST LIFTED UP AND HELD ALONG SIDE THE BODY.

A *SCOROPORUS* I ~~SAW~~ SAW DID NOT HESITATE TO DIVE INTO THE STREAM AND SWIM TO THE STEEL BANK WHEN IT SPOTTED ME. I SHOT HIM ON THE FAR BANK.

THERE WERE VERY FEW FROGS ALONG THE STREAM. 12 WHICH I SAW DIVE AND WAITED FOR, WERE ALMOST CERTAINLY *R. LIPINS*, ALTHO I DIDN'T GET EITHER. I THINK ALL THE THOBS ARE *P. LIPINS*, ALTHO I SAW A FEW VERY TINY BLACK ONES, PROBABLY *B. F.*

MARCH 31, 1949 - SAN GABRIEL.

HELMUT BROUGHT IN A *SCOROPORUS* HE CAUGHT IN HIS TRAP, A MILE N. OF TOWN. I SPENT THE MORNING MAKING SOME OF THE SPECIMENS I GOT HERE, AND WE DROVE TO GUZMAN FOR THE NIGHT. McVAUGH GOT A *STONERIA STONERIOIDES* ON COLIMA FOR ME. IT HAS ONLY 5 LABIALS (7 IN SPECIES).

~~APRIL 1, 1949~~ APRIL 1, 1949 - EN ROUTE.

SPENT THE A.M. IN GUZMAN BUYING SUPPLIES, ETC.

DROVE TO THE NE SLOPE OF THE NEVADO, BY A VERY ROUNDABOUT ROUTE. THE ALLWEATHER ROAD FROM GUZMAN TO SAN GABRIEL GOES SOUTH FROM G. TO THE FOOT OF THE NEVADO, WHERE A JUNCTION GOES SENEWAY TO ATENPQUE AND THE OTHER TO S. GABRIEL. THE LATTER FOLLOWS THE FOOTHILLS TO LOS ALPES, WHERE IT JOINS OUR OLD ROAD TO S.G. A BRIDGE AT LOS ALPES IS MISSING, THUS THE ALLWEATHER ROAD CANNOT BE USED ALL THE WAY. ABOUT 2 MILES SHORT OF LOS ALPES A ROAD GOES LEFT TO A SAWMILL, AND THEN ON UP THE MT.

APRIL 1, 1949. (CONT.)

TO 10,000 FT. THIS ROAD IS TOO STEEP ABOUT 7500 FT. FOR OUR TYPE OF TRUCK, ALTHO THE LUMBER TRUCKS GO RIGHT ON UP. WE CAMPED AT ABOUT 7200 FT.

APRIL 2, 1949 - NEVADO DE COLIMA.

I WENT DOWNHILL TODAY, BECAUSE OF MY PREVIOUS EXPERIENCES AT THE HIGH ALT. ON THIS MT. I DROPPED DOWN TO THE TREE LINE GOING DOWN, WHERE OPEN GRASSY FIELDS BEGIN (ABOUT 6800 FT). THESE FIELDS ARE SOGGY WITH ROCKS. THEY ARE CLOSELY CROPPED BY CATTLE. A LOG AT THE FOOT OF A STEEP HILL COVERED A SMALL *CROTALUS*, WHICH HAD JUST FINISHED SHEDDING HIS SKIN, THE CAST LYING BESIDE HIM. THE ROCKS YIELDED TWO SPECIES OF *SCOROPORUS*, *FERRANIPAGAZI* AND *SCALANIS*. THE LATTER WAS QUITE COMMON, AND I PICKED UP A SMALL SERIES ~~AS I~~ AS I FOLLOWED THE PATH AROUND THE HILLS. THEY WERE ALL UNDER ROCKS AND LOGS, IN OPEN FIELDS.

I CONTINUED ON DOWN THE MT. ALMOST TO THE FLAT VALLEY, AT ABOUT 6500 FT. A VERY DEEP VALLEY CAME OFF THE MOUNTAIN FROM VERY HIGH, AND CONTINUED ITS CUT TO THE FLATLANDS. I WENT DOWN INTO IT, AND TURNED ROCKS, WHICH WERE NUMEROUS. I FOUND 4 *CONOPSIS* UNDER THESE ROCKS, MOST OF THEM ON THE CANYON SIDE ONLY A LITTLE ABOVE THE STREAM BED. THE STREAM WAS PERFECTLY DRY, OF COURSE, AS IS ALL OF THIS MOUNTAIN.

WE LEFT HERE ABOUT 4 O'CLOCK, AND WENT TO GUZMAN FOR WATER. THEN WE DROVE WEST ON THE DRY WEATHER ROAD TO SAN GABRIEL, DRIVING TO ABOUT 6500 FT. WE MADE CAMP ABOUT 6:30 UNDER THE FOOTHILLS OF THE RANGE DIRECTLY TO THE NORTH OF THE NEVADO.

APRIL 3, 1949 - 10 MI. W OF C. GUZMAN.

FOUND 3 EUMECES AND ONE SCORP UNDER ROCKS AND LOGS. WE ARE STILL IN FAIRLY FLAT COUNTRY, ALTHOUGH THE FOOTHILLS GO UP 1500-2000 FT RIGHT BEHIND US. THE GRASS HERE IS ALSO HEAVILY GRAZED. ALL THE EUMECES WERE IN THE WOODS ON THE FOOTHILLS, WHILE THE SCORP WAS UNDER A ROCK IN THE HEAVILY GRAZED FIELD. SAW ANOTHER HERE I DIDN'T GET. IT WENT DOWN A GORGE HERE.

DROVE BACK TO GUZMAN AT NOON AND PICKED UP THE BOTANISTS. DROVE TO GUADALAJARA DIRECTLY, AND SPENT THE NIGHT.

APRIL 4, 1949

SPENT ENTIRE DAY IN GUADALAJARA. LEARNED FROM HELMUT THAT THERE ARE TWO MIRADORS IN VERACRUZ WHICH HAVE BOTH BEEN TYPE LOCALITIES. ONE IS BETWEEN JALAPA & V.C., THE OTHER BETWEEN CORDOBA & JALAPA. ONE IS THE FORMER PROPERTY OF PART OF HELMUT'S FAMILY, AND SERVED AS A COLLECTING PLACE FOR SEVERAL GERMAN COLLECTORS. ONE IS HUMID & MOIST TROPICAL, THE OTHER IS QUITE DRY.

APRIL 5, 1949 - AUTLAN.

LEFT GUADALAJARA ABOUT NOON, AND DROVE ABOUT 25 MILES SOUTH TO THE ROAD TO AUTLAN, THRU ACATLAN. THIS ROAD PASSES THRU CONSIDERABLE DRY COUNTRY, BUT THE VALLEYS QUITE OFTEN HAVE WATER, AND THE BARRANCAS SUPPLY IT. A CONSIDERABLE PORTION OF THE ROAD IS IN RAIN SHADOW, AND ONLY SCRAWNY OAKS, MESQUITE AND CACTUS GROW ON THE HILLSIDES. THE ROAD PASSES A QUITE SPECTACULAR MT. RANGE JUST NORTH OF AUTLAN, AND DROPS QUITE RAPIDLY

APRIL 5, 1949 - AUTLAN.

I RODE WITH THE BOTANISTS, AND WE HAD A FLAT TIRE ABOUT HALFWAY DOWN. AS A RESULT, WE DIDN'T GET TO AUTLAN TILL AFTER 5.

WENT OUT N OF AUTLAN WITH THE MASTOS TO SET TRAPS. SAW TWO LIZARDS, DIDN'T GET EITHER, BECAUSE OF THE PROXIMITY OF ROCK FENCES. FOUND A SNAKE SKIN UNDER A ROCK.

APRIL 6, 1949. AUTLAN AND 2 MI. N OF LA RESOLANA.

WENT OUT WITH THE MASTOS BEFORE SUNUP, AND HAD TO WAIT FOR SUFFICIENT LIGHT TO COLLECT. AS SOON AS THERE WAS LIGHT ENOUGH, I TURNED ROCKS AND GOT A CNEMIDOPHANE PALLASII. IT WAS QUITE CHILLY, AND I SAW NOTHING ELSE. THIS LOCALITY IS ON THE MAIN ROAD - AUTLAN - GUADALAJARA - AND IS VERY DRY VALLEY BETWEEN VERY DRY HILLS, ALL COVERED WITH MESQUITE AND CACTUS. THERE IS A LARGE RIVER SEVERAL MILES TO THE NORTH, WHICH SEEMS TO BE THE TOTAL WATER SUPPLY NEARABOUTS.

AFTER RETURNING TO AUTLAN, WE DROVE SOUTH ALONG THE HIGHWAY FROM AUTLAN TO MANZANILLO, GOING TO A SMALL TOWN CALLED LA RESOLANA, WHICH IS NOT ON THE MAP, AS SHOWN IN THE P.A.M.B., BUT SOMEWHAT SOUTH. WE TRIED TO FIND A ROAD FROM HERE UP THE SIERRA DE AUTLAN, BUT LOCAL INQUIRY SHOWED A COMPLETE LACK OF SUCH, UNLESS WE GO PRACTICALLY INTO MANZANILLO; AND WOULD TAKE 20 HRS. WE DECIDED AGAINST THIS AND RETURNED TO THE HIGHWAY, DRIVING BACK TOWARDS AUTLAN. WE CROSSED 2 MT. STREAMS ON THE WAY, AND CAMPED AT THE THIRD WE CROSSED. IT IS A WATER TRUCK FILLING STOP, FIXED UP WITH PIPES TO FILL THE TRUCK. THE STREAM CONTINUES ON ACROSS THE ~~ROAD~~ ROAD AND

APRIL 6, 1949. CONT.

DROPS A SHORT DISTANCE INTO THE VALLEY. THE ALTITUDE HERE IS 1500 FT. JUST ACROSS THE ROAD FROM CAMP IS A SWAMPY AREA, WITH A TROPICAL ASPECT. MANY LIANAS AND DRUMMAIRDS IN THE TREES, IMMENSE LEGUMES, AND SO ON. IT WAS A RICH AREA NEPHETOLOGICALLY - ^{LATER} I GOT SEVERAL *HYLA*, *LEPTODACTYLUS*, *NEALYCHNIS*, *BUFO*, *LEPTODEIRA*, ETC. IN IT. 2 OF THE 4 *LEPTODEIRA MACULATA* TAKEN WERE IN THE BASES OF ELEPHANT EAR PLANTS, THE OTHER 2 UNDER LOGS. THE *HYLA* (SMITHI I THINK) WERE AMAZINGLY ABUNDANT IN THE BASES OF THE ELEPHANT EAR, 2 OR 3 TO A LEAF. I GOT THE *H. SMITHI* + SOME VERY TINY *LEPTODACTYLUS* ON THE 6TH, BUT WHEN I PRESERVED THEM THE NEXT DAY, THE SUN GOT TO THEM IN LATE AFTERNOON, AND DRIED THEM OUT PRETTY THOROUGHLY. KEPT THEM - MAY BE GOOD SKELETAL MATERIAL. GOT A *BUFO* AT NIGHT CROSSING THE ROAD.

APRIL 7, 1949 - 2 MI. N. OF LA RESURRECCION, 1500 FT.

SPENT THE ENTIRE DAY IN THE TROPICAL AREA, EXCEPT FOR SOME LIZARD STROVING IN THE DRY SLOPES WHICH SURROUND THE SWAMPY GROUND. *AMEIVA*, *ANOLIS*, 2 KINDS OF *CNEMIDOPHONUS* AND *SCALOPS* ARE HERE. I ALSO GOT A LARGE *PICIENS* UNDER A LOG IN THIS DRYER AREA. GOT THE 4 SNAKES ON THIS DATE, AS ABOVE. THERE WERE MANY FISH IN THE STREAMS, ALL FISHWAYS. THE TREES WERE FULL OF PARROTS, *SOLITAIRES*, AND DOZENS OF OTHERS. IT WAS ONE OF THE MOST DELIGHTFUL PLACES I'VE HIT, AND THE ONLY THING WRONG IS THAT IT'S TOO SMALL.

APRIL 8, 1949 - 2 MI. N. OF LA RESURRECCION.

I RETURNED TO THE SAME AREA TO NEAR THE BOTANISTS COLLECT SOME OF THE ELEPHANT EAR (THEIR NUMBER ON IT IS) IN WHICH I FOUND SO MUCH. I GOT MORE OF THE FRAGS TO REPLACE THE DRIED SERIES, AND ALSO GOT SOME OF THE GRASSHOPPERS WHICH LIVE IN THE LEAVES. WE LEFT HERE IN THE AFTERNOON AND ^{ON A ROAD} DROVE TO THE HIGHEST POINT, WHERE WE STOPPED TO COLLECT. IT IS QUITE DRY, WITH SCRUBBY OAK COVER, ALSO SOME OF THE *PARACAS* ARE SOMEWHAT MORE MOIST. THE HILLS ARE QUITE BARE. I PICKED UP AN *ANOLIS*. WE DROVE INTO AULAN FOR THE NIGHT, AND I SPENT MOST OF EVENING WORKING ON SPECIMENS.

APRIL 9, 1949 - AULAN, 3000 FT.

SPENT THE ENTIRE DAY CATALOGING AND PREPARING WHAT I'VE COLLECTED RECENTLY. I'VE BEEN WRITING FOR A CHANCE TO FIX THINGS RIGHT FOR 2 WEEKS, AND I CAN EARLY LIVE STUFF NO LONGER. WE LEAVE MONDAY TO SPEND THE WEEK HIGH IN THE SIERRA DE AULAN, AND SPECIMENS WILL BE OUT OF PLACE IN THE MULE TRAIN.

APRIL 10, 1949 - AULAN, 3000 FT.

DROVE WITH THE JEES TO CHIATE TO ARRANGE FOR PACK ANIMALS FOR THE TRIP UP THE SIERRA. I DIDN'T GO ALL THE WAY, HOWEVER, BECAUSE OF THE GOOD COLLECTING ALONG THE WAY. THE ROAD GOES 8 MI. E. OF AULAN, THEN ABOUT 6 MI. S. TO CHIATE. IT IS IN THE VALLEY MOST OF THE WAY, THRU DRY, DUSTY COUNTRY, WITH THORNY BUSHES, MESQUITE AND SOME CACTI. THERE IS A LOVELY YELLOW FLOWERING TREE, CALLED *PRIMAVERA*, ALL ALONG THE ROAD.

APRIL 10, 1949, CONT.

THE ROADS ARE LINED WITH ~~ST~~ STONE FENCES AND THORNY BUSHES, AND THESE ARE ALIVE WITH LIZARDS. *AMEIVA* AND *Cnemidophorus* ABOUND ON THE GROUND, AND THE FENCES HAVE *CTENOSAURUS* EVERY FEW FEET. I COLLECTED A SERIES OF THE *CTENOSAURUS*, WITH A WONDERFUL COLOR VARIATION. 2 OF THE 12 COLLECTED WERE SHOT OUT OF A TREE, ONE IN A HOLE ABOUT 35 FEET UP, THE OTHER ON A LIMB ABOUT 20 FEET UP. THE TREE WAS IN THE MIDDLE OF A RANCHO YARD, WHICH IS FAIRLY WELL SURROUNDED BY HOUSES. THEY LIE ON HOUSES AND BARN ROOFS QUITE COMMONLY. THEY LIE ON THE TOPS OF THE STONE FENCES, WITH THEIR HEADS RAISED, AND SLIGHTLY RAISED ON THE FINE LIMBS. THEY ARE EASILY VISIBLE FOR A LONG DISTANCE.

I GOT A *Cnemidophorus* ALONG THE ROAD, AND *R. PIPERIS* UNDER A LOG NEAR A SMALL STREAM WHICH PURPORTS TO HAVE TURTLES, ALTHO I SAW NONE.

RETURNED TO TOWN ABOUT 2 P.M. AND SPENT THE REST OF THE DAY FIXING UP THE *CTENOSAURUS*.

APRIL 11, 1949. ENROUTE TO SIERRA.

DROVE TO CHIANTE WHERE WE LOADED OUR GEAR. ON MULES, LEFT THE TRUCK, AND STARTED UP THE MOUNTAIN. ON THE WAY UP WE PASSED THRU THE FOLLOWING SMALL VILLAGES:

THE TRAIL WINDS THRU PASSES BETWEEN MOUNTAINS WHICH STILL PERMEATE THE DAY LOOK OF THE VALLEY. THERE IS MUCH DRY SCRUB OAK AND DRY GRASS. I COLLECTED AN *ANOLIS* IN AN ELEPHANT EAR, IN A DRY CREEK BED, ABOUT 3500 FT. WE HIT OAK FOREST ABOUT

APRIL 11, 1949, SIERRA DE AUTLAN.

4600 FT., AND PINES AT ABOUT ~~4000~~. WE CAMPED EARLIER THAN WAS NECESSARY IN A VALLEY THAT CONTAINED A GOOD NUMBER OF SPRINGS GIVING RISE TO SMALL STREAMS, WHICH COMBINE INTO A GOOD SIZED RIVER. I FOUND A *RHODINAE* UNDER THE FIRST LOG I TURNED, AND FOUND NOTHING ELSE THE REST OF THE NIGHT. THE ALTITUDE OF THIS CAMP WAS 5000 FT., AND THE AREA IS CALLED MANANTLAN BY THE NATIVES.

APRIL 12, 1949. SIERRA DE AUTLAN, 7600 FT.

WE CONTINUED OUR TRIP ON UP TO 7600 FEET TODAY, UP A CAÑADA WHICH CONTAINED CONSIDERABLE WATER. WE CLIMBED THE HILLS TO THE EAST OF MANANTLAN. THE CAÑADA IS THE FIRST TO THE EAST OF THE CREST. WE WENT ALONG THE MOUNTAIN ABOUT 2-3 MILES AND CAMPED NEAR A SPRING. THE WOODS ARE NOT NEARBY, BUT THE TREES ARE LARGE AND TALL. THE UNDERGROWTH IS NOT THICK EXCEPT IN THE FLOOD OF THE VALLEY.

AFTER LUNCH, I LOOKED ABOUT FOR GOOD COLLECTING PLACES, AND ENDED UP CLIMBING THE HILL. IT IS QUITE STEEP, AND IT TOOK ME 2 HRS TO GO UP. IT IS THE HIGHEST POINT IN THIS VICINITY, HOWEVER, AND PRESENTS AN ADMIRABLE VIEW. THE NATIVES SAY THAT ON A GOOD DAY ONE CAN SEE BOTH MONTECILLO AND GUADALAJARA FROM IT. I COULDN'T.

I FOUND A *GEORPHOTUS IMPRIGATUS* AT AN ALTITUDE OF 9200 FT., UNDER A LOG.

HELMUT CAUGHT AN *ANOLIS* FOR ME AT THE CAMP THIS A.M. BEFORE WE LEFT FOR UP HILL.

APRIL 13, 1949 - SIERRA DE AUTAN.

THIS AREA, ALTHO WET, HAS BEEN HEAVILY BURNED OVER RECENTLY - WITHIN 2 ~~YRS~~ YRS OR LESS, I WOULD JUDGE, AND BURNED HARD. ALL OF THE LOGS ARE BURNED SOME CLEAR TRAIL. I BELIEVE THAT THIS HEAVY AND ACCIDENTAL TO INDIANS, REPORTED BURNING IS VERY DETRIMENTAL TO NEAR STUFF. I THINK IT CLEANS IT OUT OF THE AREA, AND THEY ARE AWFULLY SLOW TO COME BACK. IT MAY EXPLAIN THE PAUCITY OF MATERIAL HERE. ANYWAY, I WORKED HARD ALL DAY, AND GOT NOTHING AT ALL.

HELMUT GOT ME ANOTHER GERMANOVUS ON THE MOUNTAIN, HOWEVER, SO THE DAY WASN'T WASTED.

APRIL 14, 1949 - SIERRA DE AUTAN.

WORKED SOUTHEAST OF CAMP ALONG THE STREAMBED, FINDING MANY VERY GOOD PLACES FOR SPECIMENS, WONDERFUL HABITATS, AND SO ON. AFTER A FULL MORNING'S WORK I CAUGHT A SALVATOR DRINKING AT A SMALL POOL OF WATER IN A DRY SECTION OF THE CREEK. IT IS AMAZING THAT SUCH GOOD TYPICAL HABITAT CAN BE SO BARREN OF SPECIMENS.

WENT DOWNSTREAM IN THE AFTERNOON AND MET BOB WILSON, ALL EXCITED. HE HAD FOUND SALAMANDERS IN THE STREAM. HE HAD TWO FOR ME, AND THEY WERE GILLED AMBYSTOMA. THEY WERE LIVING IN THE QUIET POOLS FORMED OCCASIONALLY BY THE RAPIDLY FLOWING STREAM. I COLLECTED A COUPLE MORE, AND WENT TO CAMP TO MAKE A DIP NET TO FACILITATE GETTING A SERIES. THE THING IS UNDOUBTEDLY NEW.

BOB ALSO KILLED A THAMNOPTIS FOR ME WHICH HAD BEEN LYING ALONGSIDE A POOL. HE ALSO GOT A HYLAFROM A TREE HE CUT DOWN.

APRIL 14, 1949 - SIERRA DE AUTAN (CONT.)

I FASHIONED A DIP NET OUT OF CNEESCLOTH AND SPENT THE NIGHT CATCHING A SERIES OF THE AMBYSTOMA. AFTER GETTING THE ADULTS I FOUND JUVENILES IN MUDDY POOLS UPSTREAM, AND I GOT A FEW OF THEM. THERE SEEMS TO BE NO SIGN OF SEXUAL ACTIVITY AT THIS TIME, AND THE JUVENILES MAY BE FROM THIS YEAR'S WATER, WHICH WOULD GIVE THEM ENOUGH TIME TO GROW UP BEFORE THE RAINS AND HEAVY SWOLLEN STREAMS APPEAR.

APRIL 15, 1949 - SIERRA DE AUTAN.

SPENT THE MORNING PREPARING THE SALAMANDERS. I TRIED A NEW TECHNIQUE, IN ORDER TO GET A FULL TAIL, WITH OUTSTANDING FINS, ^{AND GILLS.} IT WORKED QUITE WELL. INSTEAD OF USING A PAN TO FIX THEM, I DROPPED THEM IN A LARGE CAN OF FORMALIN, WITH NOTHING TO TOUCH THEM. THE GILLS FLARED OUT AND THE TAIL FIN WAS FULLY EXPANDED. THEY FIXED THAT WAY FAIRLY WELL. THE SAME THING WORKED FAIRLY WELL FOR THE JUVENILES I HAVE.

HELMUT AND I WENT OUT AND TOOK PICTURES OF THE POOLS THIS P.M. HE WENT TO A LOT OF TROUBLE AND HARD WORK, AND I THINK THEY'LL BE FINE. I THEN COLLECTED A FEW MORE OF THE SALAMANDERS, TOOK NOTES ON THEM AND THEIR HABITAT, AND SO ON. THE BOTANISTS BROUGHT IN A SCLOP? AND A STONEIA FROM THE TOP OF THE MT., AND HELMUT BROUGHT IN A STONEIA HE FOUND ON THE TRAIL. THE STONEIA KEY TO STONEMOIDES, BUT THEY SURE DON'T LOOK LIKE THE ONE I GOT ON COLIMA. THESE AUTAN SPECIMENS WILL ALL BEAL CLOSELY CHECKING.

APRIL 16, 1949 - SIERRA DE AUTLAN.

PACKED UP AND LEFT CAMP TODAY. THE MULE DRIVERS WERE SLOW GETTING UP THE MOUNTAIN AND SLOWLY GETTING PACKED, SO WE FINALLY LEFT AT 12:30. I SAW A SCORPION ON THE WAY DOWN, AT ABOUT 7500 FT., AND ONE OF THE INDIAN MULE DRIVERS PICKED UP AN ANOLIS AT ABOUT 4600 FT.

TO GET TO OUR LOCALITY, ONE GOES FROM CHANTE THRU LA CEDRA AND TECOPATLAN TO A GROUP OF RANCHES CALLED MANANTLAN. WE WERE IN THE MOUNTAINS TO THE EAST OF MANANTLAN. THERE ARE A NUMBER OF SPRINGS IN THE NW CORNER OF THE VALLEY IN WHICH MANANTLAN IS LOCATED, AND THE TRAIL UP THE MT. PASSES THRU THIS AREA. OUR CAMP, AT 7600 FT., WAS TO THE SOUTHWEST OF MANANTLAN.

THE INDIANS IN THE PACK TRAIN KNOW WHAT THE SALAMANDERS WERE, CALLING THEM AXOLOTES. THEY TOLD ME THAT THE STREAM FROM WHICH I TOOK THEM IS THE ONLY ONE IN THIS ENTIRE REGION, THAT THEY HAD NEVER SEEN THEM ELSEWHERE. THE STREAM FLOWS INTO THE RIO ARMERIA, WHICH IS PACIFIC DRAINAGE DIRECTLY. THUS IT WOULD SEEM THAT THIS IS A TOTALLY ISOLATED, ENDEMIC POPULATION.

APRIL 17, 1949 - AUTLAN & GUADALAJARA.

THE BOY IN THE HOTEL AT AUTLAN, THE SON OF THE OWNER, IS A BRIGHT LAD, AND WHEN HE SAW A SNAKE WHICH SOME PEOPLE HAD IN THE HOTEL, HE TOLD THEM OF ME. THEY BROUGHT IT IN FOR ME TO SEE, AND IT WAS A GOOD BIG SEA SNAKE WHICH THEY HAD GOTTEN AT BARRA NAVIDAD, A RESORT ON THE OCEAN. THEY WERE TAKING IT TO THE

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LASTING THIS P.M.

NO.

SPENT DAY GRUBBING THRU BOOKSTONES. FOUND ONE HORRIBLE OLD THING I BOUGHT FOR ITS SIGHT PIECE ON THE RELATIONS OF MAN AND SNAKES

APRIL 18, 1949 - GUADALAJARA.

HELMUT AND I WENT OUT TO A BARRANCA WHICH IS LOCALLY CALLED "BARRANCA IBARRA", WHICH IS THE SAME NAME AS BOILEY'S TYPE LOCALITY OF PTENOSTOMA PANICERI, WHETHER IT IS THE SAME LOCALITY OR NOT. WE ENDED UP ON TOP OF THE CANYON, HOWEVER, SO WE HAD TO WALK DOWN THE OLD POST ROAD TO AGUASCALIENTES. THE DISTANCE, HOWEVER, DEFEATED US, SO WE HAD TO TURN BACK. PEOPLE TOLD US THAT THERE ARE LARGE LIZARDS IN THE BOTTOM OF THE CANYON, AND WE PLAN TO DRIVE THERE NEXT TRIP IN. A ROAD RUNS TO THE POWERHOUSE ON THE DAM WHICH WE COULD SEE FAR BELOW, AND WE WILL COME BACK ON THAT.

I GOT A SMALL ANOLIS ON THE TOP OF THE HILL. I ALSO SAW Cnemidophorus, WHICH WOULD HAVE BEEN TYPES, BUT I DIDN'T GET ANY OF THEM.

APRIL 20, 1949 - GUADALAJARA AND AMECAL

DROVE TO AMECAL IN THE P.M., AFTER WRITING ALL DAY TO GET STARTED. THE HIGHWAY TO TEQUILA IS PAVED, AND WE FOLLOWED IT FOR ABOUT 20 MILES, TURNING OFF ON AN

APRIL 16, 1949 - SIERRA DE AUTAN.

PACKED UP AND LEFT CAMP TODAY. THE MULE DRIVERS WERE SLOW GETTING UP THE MOUNTAIN AND SLOWER GETTING PACKED, SO WE FINALLY LEFT AT 12:30. I SHOT A *SCeloporus* ON THE WAY DOWN, AT ABOUT 7500 FT., AND ONE OF THE INDIAN MULE DRIVERS PICKED UP AN *ANOLIS* AT ABOUT 4600 FT.

TO GET TO OUR LOCALITY, ONE GOES FROM PINATE THRU LA CEDRA AND TECOPATAN TO A GROUP OF RANCHES CALLED MANANTLAN. WE WERE IN THE MOUNTAINS TO THE EAST OF MANANTLAN. THERE ARE A NUMBER OF SPRINGS IN THE NW CORNER OF THE VALLEY IN WHICH MANANTLAN IS LOCATED, AND THE TRAIL UP THE MT. PASSES THRU THIS AREA. OUR CAMP, AT 7600 FT., WAS TO THE SOUTHWEST OF MANANTLAN.

THE INDIANS IN THE PACIFIC TRAIN KNOW WHAT THE SALAMANDERS WERE, CALLING THEM *AXOLOTES*. THEY TOLD ME THAT THE STREAM FROM WHICH I TOOK THEM IS THE ONLY ONE IN THIS ENTIRE REGION, THAT THEY HAD NEVER SEEN THEM ELSEWHERE. THE STREAM FLOWS INTO THE RIO ARMERIA, WHICH IS PACIFIC DRAINAGE DIRECTLY. THUS IT WOULD SEEM THAT THIS IS A TOTALLY ISOLATED, ENDEMIC POPULATION.

APRIL 17, 1949 - AUTAN & GUADALAJARA.

THE BOY IN THE HOTEL AT AUTAN, THE SON OF THE OWNER, IS A BRIGHT LAD, AND WHEN HE SAW A SNAKE WHICH SOME PEOPLE HAD IN THE HOTEL, HE TOLD THEM OF ME. THEY BROUGHT IT IN FOR ME TO SEE, AND IT WAS A GOOD BIG SEA SNAKE WHICH THEY HAD GOTTEN AT BAYRA NAVIDAD, A RESORT ON THE OCEAN. THEY WERE TAKING IT TO THE

APRIL 17, 1949, CONT.

MUSEUM AT GUADALAJARA. I TOOK NOTES ON IT AND PRESERVED IT PROPERLY FOR THEM. MAC GOT SOME OLD AND PICTURES OF IT FOR ME.

WE DROVE TO GUADALAJARA THIS P.M.

APRIL 18, 1949 - GUADALAJARA.

SPENT DAY GRUBBING THRU BOOKSTORES. FOUND ONE HORRIBLE OLD THING I BOUGHT FOR ITS SHORT PIECE ON THE RELATIONS OF MAN AND SNAKES.

APRIL 19, 1949 - GUADALAJARA.

HELMUT AND I WENT OUT TO A BARRANCA WHICH IS LOCALLY CALLED "BARRANCA IBARRA", WHICH IS THE SAME NAME AS BOILEY'S TYPE LOCALITY OR *STENOPODUS* *PARICERI*, WHETHER IT IS THE SAME LOCALITY OR NOT. WE ENDED UP ON TOP OF THE CANYON, HOWEVER, SO WE HAD TO WALK DOWN THE OLD POST ROAD TO NEUSCOLIENTES. THE DISTANCE, HOWEVER, DEFEATED US, SO WE HAD TO TURN BACK. PEOPLE TOLD US THAT THERE ARE LARGE LIZARDS IN THE BOTTOM OF THE CANYON, AND WE PLAN TO DRIVE THERE NEXT TRIP IN. A ROAD RUNS TO THE POWERHOUSE ON THE DAM WHICH WE COULD SEE FAR BELOW, AND WE WILL COME BACK ON THAT.

I GOT A SMALL *ANOLIS* ON THE TOP OF THE HILL. I ALSO SAW *Cnemidophorus*, WHICH WOULD HAVE BEEN ZOO TYPES, BUT I DIDN'T GET ANY OF THEM.

APRIL 20, 1949 - GUADALAJARA AND AMEGA.

DROVE TO AMEGA IN THE P.M., AFTER WAITING ALL DAY TO GET STARTED. THE HIGHWAY TO TEQUILA IS PAVED, AND WE FOLLOWED IT FOR ABOUT 20 MILES, TURNING OFF ON AN

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APRIL 20, 1949, CONT.

IMPROVED ROAD TO AMEGA. IT IS NOW IN THE PROCESS OF CONSTRUCTION, BUT IS A FAIRLY GOOD ROAD ALREADY. I SAW TADPOLES IN THE ROADSIDE PONDS AND CREEKS, BUT WE DIDN'T STOP. WE PUT UP IN THE HOTEL REGIS IN AMEGA.

APRIL 21, 1949 - AMEGA.

WENT OUT WITH THE MASTOS, AND HUNTED ALONG A SMALL CREEK WHILE THEY RAN THEIR TRAPS. IT WAS ABOUT 7 MI. W. OF AMEGA, ON ONE OF THE DETOURS MADE FOR THE NEW ROAD, WHICH IS STILL IN THE PROCESS OF BUILDING HERE. THE ROAD FOLLOWS A SMALL STREAM, AND I GOT OUT THERE. I TURNED ROCKS ALONG THE STREAM, BUT FOUND NOTHING FOR $\frac{1}{4}$ OF AN HOUR. I THEN WALKED ALONG A HILLSIDE, AND FINALLY GOT A SNAKE (JAB) UNDER A ROCK WHERE THE CREEK CUT OVER THE HILLSIDE. I LATER GOT A SCOLOPORUS FERNANDEZII NEAR THE CREEK. FIRST I JUMPED INTO THE CREEK, I THINK THEY WERE PIRIENS.

AFTER BREAKFAST, I TOOK THE TRUCK AND DROVE AROUND TRYING TO FIND A PLACE TO COLLECT. I TRIED GOING NORTH, BUT THERE WERE NO GOOD ROADS. I FINALLY ENDED UP ON THE "CAMINO REAL", THE OLD SPANISH ROAD TO THE WEST. I FOLLOWED IT FOR 10 MILES, UNTIL IT RANDED THE RIO AMEGA. I DIDN'T CHANGE THE FUND. I SHOT SEVERAL OTENOSAUROS OFF STONE FENCES ALONG THE ROAD.

I PARKED ON THE WAY BACK AND WALKED TO THE RIVER (IT WAS CROOKFUL OF TADPOLES. A SHORT WAY ^{UPSTREAM} FROM WHERE I PARKED (ABOUT 7 MI. W., THIS TIME N. OF THE RIVER)), I FOUND A SLOUGH, WHICH PRODUCED BUFO, RANA, NYLA, AND LEPTODACTYLUS. I SAW SNAKE TRAILS AND SNAKE SKINS, BUT

APRIL 21, 1949. - CONT.

NO SNAKES.

APRIL 22, 1949 - AMEGA.

THE MASTOS WENT OUT LAST NIGHT AND TOOK THE TRUCK, STAYING THE FULL NIGHT, EXPECTING TO BE BACK FOR BREAKFAST. CAME BREAKFAST AND THEY DIDN'T SHOW, SO I WAITED. THEY FINALLY CAME IN AT NOON, AND I COULDN'T GO OUT AND RECOVER ANYTHING BEFORE TIME FOR DINNER. THAT TOOK TILL 3 O'CLOCK P.M., THEN THE MASTOS WERE READY TO GO AGAIN. MY DAY WAS TOTALLY WASTED, EXCEPT FOR SOME RANA & BUFO I GOT WHEN I WENT OUT WITH THE MASTOS.

APRIL 23, 1949 - AMEGA.

BILL AND I DROVE OUT OF THE CITY ON THE OLD CAMINO REAL TODAY. THE ROAD PARALLELS THE RAILROAD MOST OF THE WAY ACROSS THE VALLEY, APPARENTLY. THERE ARE MANY STONE FENCES AND CONSIDERABLE COVER ALONG THE ROAD, SO BILL RODE ON THE FENDER FOR SHOOTING. HE SHOT A SCOLOPUS AND A CHEMIDOPHILUS. ABOUT 5 $\frac{1}{2}$ - 6 MI. E. OF AMEGA, THE ROAD FORKS AND ONE BRANCH GOES SOUTH ACROSS THE R.R. WE WENT THAT WAY, PICKING UP A YOUNG FELLOW AS WE WENT. HE SPENT THE REST OF THE MORNING WITH US, CATCHING TURTLES, ETC. WE PASSED THROUGH A RANCH CALLED SAN ANTONIO, AND FORDED THE RIO AMEGA ON THE RANCH'S SOUTH EDGE. WE STOPPED THERE TO COLLECT. THE RIVER HAS FAIRLY HIGH, EASY AND SAND BANKS, AND RUNS FAIRLY DEEPLY, IN PLACES TURTLES WERE ABUNDANT AND I GOT A SERIES. I SAW SEVERAL SNAKES IN WATER HYACINTH BEDS, BUT GOT ONLY ONE. RANA PIRIENS WAS VERY COMMON ALONG THE BANKS.

APRIL 24 - AMECA.

AFTER THE MASTOS GOT BACK IN THE MORNING, I TOOK HELMUT TO THE AIRPORT TO FIND OUT ABOUT ROADS TO SAN SEBASTIAN, THEN TOOK HIM BACK TO TOWN AND WENT OUT ALONE. I WENT SOUTH ALONG THE ROAD TO SAN MARTIN HIDALGO AND AUTLAN, STOPPING FIRST ABOUT A HALF MILE S OF THE AIRPORT. SAW 2 COVE'S DEER, AND SHOT AT THEM, BUT MISSED.

FROM HERE I DROVE ABOUT 2 MI FURTHER SOUTH AND STOPPED AT A BRIDGE WHICH HAD A SMALL POND OF STAGNANT WATER, ALL THAT WAS LEFT OF A GOOD SIZED CREEK. I FOLLOWED THE CREEK BED BOTH WAYS FROM THE ROAD, COLLECTING SCORPIONS & CINCIDIPES. WHEN I RETURNED TO THE SMALL POND I SCARED UP AND CAUGHT A 5 1/2 FOOT HASTICORNIS FLAGELLUM. R. PIPENS WAS ALSO ABUNDANT AROUND THIS POND. RETURNED TO TOWN, AS IT WAS TIME FOR THE MASTOS TO GO OUT AGAIN.

APRIL 25, 1949 - AMECA - GUADALAJARA

WE LEFT AMECA AFTER THE MASTOS FINISHED SKINNING. WHILE I WAITED I DROVE WEST AGAIN ALONG THE CAMINO REAL AND SHOT 4 MORE CINCIDIPES. I KEPT ONE WHOLE SPECIMEN AND PRESERVED THE REST. AS SKULLS ONLY, TAKING DATA ON THEM FIRST. THEY WERE, AS USUAL, ON STONE FENCES ALONG THE ROAD.

THE VALLEY OF AMECA IS A VERY DIFFICULT ONE TO COLLECT IN, BECAUSE OF THE INTENSE CULTIVATION IT HAS UNDERGONE. THE RIVER IS USED IN ALL PARTS OF THE VALLEY FOR IRRIGATION, AND THE WHOLE VALLEY IS COVERED WITH SUGAR CANE, CORN AND WHEAT. ONE IS FORCED TO GO A LONG WAY TO FIND A PLACE WILD ENOUGH TO COLLECT

APRIL 25, 1949, CONT.

IN. THE WHOLE VALLEY IS WELL POPULATED, AND IT IS PRACTICALLY IMPOSSIBLE TO STOP AND COLLECT WITHOUT SPENDING A HALF HOUR EXPLAINING WHAT YOU ARE DOING TO SOMEONE.

DROVE SOUTH ON THE AMECA - AUTLAN ROAD TILL WE PICKED UP THE AUTLAN - GUADALAJARA HIGHWAY, THEN WENT TO GUADALAJARA. THIS IS MUCH THE BETTER ROAD, BUT THE OTHER WILL PERHAPS BE BETTER WHEN IT IS FINISHED. STAYED IN THE HOTEL MORALES IN G.

APRIL 26, 1949 - GUADALAJARA.

SPENT DAY HERE, WAITING FOR MAIL FOR HOOPER, ALTHO WE HAD ORIGINALLY PLANNED TO GO ON AT NOON TODAY.

APRIL 27, 1949 - GUADALAJARA - TEPIC, NAY.

WE LEFT HERE EARLY THIS MORNING, ON THE GUAD-TEPIC HIGHWAY. WE CONTINUED CLEAR TO TEPIC, WHERE WE PICKED UP A ROAD TO THE SOUTH WHICH TOOK US, EVENTUALLY, TO A SMALL PLACE CALLED SAN JOSE DEL CONDE. ^{BY WAY OF COMPOSTELA} THIS WAS AS CLOSE AS WE COULD GET TO THE SIERRA SAN SEBASTIAN BY TRUCK. WE CAMPED A SHORT WAY SOUTH OF TOWN AND WAITED TILL THE NEXT DAY TO TRY TO GET MULES.

WE FOUND A HASTICORNIS FLAGELLUM DOR JUST OUTSIDE OF AUTLAN, NAYARIT. THE BULLDOGS HAD EATEN HIM PRETTY BADLY, BUT I KEPT HIM ALL FOR CLOSER INSPECTION LATER. HOOPER SHOT A SCORPION FOR ME JUST OUTSIDE COMPOSTELA.

THE COUNTRY HERE IN NAYARIT IS ALMOST A STEADY PICTURE OF ISOLATED MOUNTAINS AND CANYONS, FERTILE VALLEYS. THE MOUNTAINS LOOK TO BE QUITE DRY AND BARE FOR THE MOST PART, ALTHO SOME HAVE SCRUB OAK AND PINE

APRIL 27, 1949 - CONT.

ON THEM. QUITE A FEW OF THE STREAMS WE CROSSED HAVE WATER IN THEM.

APRIL 28, 1949 - 1 MI. SW OF SAN JOSE DEL CONDE, 3000 FT.

MACINTOSH BROUGHT IN A PHYCODACTYLUS LARVA WHICH HE HAD CAUGHT IN A MOUSE TRAP DURING THE NIGHT.

THIS IS A VERY DRY CAMPAIGN, AMONGST MESQUITE AND OACI, WITH LITTLE GRASS COVER. THERE ARE DEEPER VALLEYS ON EITHER SIDE OF THE RIDGE WE ARE ON, AND THERE IS WATER IN THESE. I COLLECTED SMALL SERIES OF THE CHERIDOPS AND SCALOPS IN THE CANYON TO THE WEST OF THE CAMP, AS WELL AS AN ANOLIS AND SOME PITTENS.

WHEN I RETURNED TO CAMP, THE MASTOS TOLD ME OF A BARRANCO EAST OF THE CAMP, WITH MUCH WATER, BANANAS AND ELEPHANT EARS. I WENT OVER, AND FOUND A GREEN SPRING FGD VALLEY, WITH MUCH LIFE. I GOT REALYCNIS, HYLA AND LEPTODEIRA, IN THE BANANA BOES AND ELEPHANT EARS.

WE DROVE BACK TO SAN JOSE DEL CONDE, AND TOOK A ROAD TO THE EAST, WHICH WENT DIRECTLY TO THE HIGHWAY BY WAY OF TETITLAN, COMING OUT SE OF SANTA ISABEL. WE DROVE OUT THE HIGHWAY ABOUT 2 MILES N. OF SANTA ISABEL AND MADE CAMP.

APRIL 29, 1949 - 3 MI. N. OF SANTA ISABEL, 3800 FT.

OUR CAMP IS IN A CREEK BED JUST TO THE EAST OF THE ROAD, AND I FOLLOWED THIS CREEK DOWN TO A FALLS, WHICH I CIRCLED, COMING OUT IN A BANANA GROVE. I SHOT SMALL SERIES OF THE SCALOPS & CHERIDOPS, AND ALSO PICKED

APRIL 29, 1949 - CONT.

UP AN ANOLIS & A CRENOSAURA. THE LATTER WAS ON ROCKS NEAR ON A BLUFF.

THERE IS CONSIDERABLE PERMANENT, FLOWING WATER AT THIS LOCALITY. IT FLOWS SO RAPIDLY AND DEEPLY, HOWEVER, THAT IT IS RATHER DISCOURAGING TO NEW LIFE. ALL ROCKS ARE BULIED IN SAND AND ARE UNTURNABLE. I GOT A LITTLE ELEPHENDACTYLUS UNDER A ROCK IN THE AFTERNOON, ALONG THE RIVER, AND ALSO GOT ANOTHER REALYCNIS.

APRIL 30, 1949 - 3 MI. N. OF SANTA ISABEL.

SINCE I COLLECTED MOST OF THE COMMON STUFF HERE YESTERDAY, I HUNTED TODAY FOR THE REST OF THE NEW FAUNA. I GOT ONLY A SCALOP FOR ITS SKULL BESIDES A SNAKE WHICH LOOKS LIKE HYPSIBEENA REYNOLDSI, DEAD IN A PATH, AND PRETTY BADLY CRUSHED. I'VE TWO OF THEM NOW, AND THEY HAD BEEN PREVIOUSLY REPORTED FROM ONLY TWO LOCALITIES IN MEXICO. IT WAS IN A PATH HIGH ON A HILL, COVERED WITH LONG GRASS THAT WAS ALL I FOUND ALL DAY.

AT MAY 1, 1949.

GOI A LATE START, AS THE MASTOS GOT BACK QUITE LATE. I WENT EAST OF THE HIGHWAY TO THE HIGH ^{HILLS} ~~POINTS~~ THERE. I SAW CRENOSAURAS ON THE ROCKS, BUT COULD GET NONE. I SHOT A SCALOP THERE ALSO. MOST OF THE AREA WAS SEVERELY BURNED OVER, AND THERE WERE NO LIZARDS IN THE BURNED AREAS.

SEVERAL OF THE STREAM CUT VALLEYS HAVE WATER FLOWING IN THEM, AND I FOLLOWED ONE UP. FOUND PITTENS

IT ~~IN THE~~, AS WELL AS AMIBIDIAN EGG MASSES JUST IN THE PROCESS OF HATCHING. THEY WERE CLUMPIED, WITH A SINGLE EGG, ABOUT 4 INCH LONG, TO EACH JELLY BALL.

MAY 2, 1949 - IXTLAN, NAYARIT.

DROVE TO IXTLAN ABOUT NOON, AND PUT UP AT THE HOTEL MADRID, WHICH IS A GOOD PLACE NOT TO STAY. THE SANITARY FACILITIES ARE - TO SAY THE MOST - INADEQUATE.

RODE ALONG WITH THE MASTOS (MR. GILSON), AND WENT DOWN ALONG THE RIVER. THE STREAM HERE IS QUITE SLUGGISH AND SLOW, WITH MANY ROCKS ON THE BANKS, AND STAGNANT POOLS ALONG THE SIDES. THIS COMBINATION PRODUCED KINGSTERNON, LEPTODEIRA, BUFO, NYLA, AND LEPTODACTYLUS IN AN HOUR AND A HALF. MOST CAME FROM UNDER ROCKS ALONG THE STREAM, IN THE STAGNANT POOLS.

MAY 3, 1949 - IXTLAN.

I WAS INCAPACITATED MOST OF THE DAY, HAVING A NEEL PUT ON MY SHOES. I PREPARED WHAT I HAD AND BROUGHT MY NOTES UP TO DATE.

WENT OUT TO THE SAME PLACE IN THE RIVER AND PICKED UP 2 MORE LEPTODEIRA AND 3 LEPTODACTYLUS. MACINTOSH GOT ANOTHER BUFO & 3 LEPTODACTYLUS.

ITINERARY

FEB. 15 - MT. VERNON, ILLINOIS

" 16 - LITTLE ROCK, ARKANSAS

" 17 - JACKSONVILLE, TEXAS

" 18 - LAREDO, TEXAS

" 19 - LINARES, NUEVO LEON

" 20 - TAMAZUNCHALE, SAN LUIS POTOSI

" 21-28 - MEXICO CITY, D.F.

MARCH 1 - TOBOLA, PUEBLA

" 2-4 - COPIAC DE PENOTE, VERACRUZ

" 5, LAS VEGAS, V.C.

" 6, TALAPOA, V.C.

" 7, PLAN DEL RIO, V.C.

" 8, CORDOBA, V.C.

" 9 - PATRERO VIEJO, V.C.

" 10-13 - MEXICO CITY

" 14-15 - NEVADA DE TOLUCA, MEXICO.

" 16 - CIUDAD HIDALGO, MICHOACAN

" 17-21 - CERRO SAN ANDRES, MICHOACAN.

" 22 - LAKE PATZCUARO, MICHOACAN.

" 23 - CIUDAD GUZMAN, JALISCO

" 24-28 - EL ISOLTE, NEVADO DE COLIMA, JALISCO.

" 29-30 - SAN GABRIEL, JALISCO.

" 31 - CIUDAD GUZMAN, JALISCO

APRIL 1 - NEVADO DE COLIMA, JALISCO.

" 2 - 6 MI. W. OF CIUDAD GUZMAN, JALISCO.

" 3-4 - GUADALAJARA, JALISCO.

" 5 - AUTLAN, JALISCO.

" 6-7 2 MI. N. OF LA RESOLANA, JALISCO.

" 8-10 AUTLAN, JALISCO.

" 11-15 SIERRA DE AUTLAN, JALISCO.

" 16 - AUTLAN, JAL.

" 17-19 GUADALAJARA, JAL.

" 20-24 AMEGA, JALISCO.

" 25-27 GUADALAJARA, JAL.

" 28 1 MI. SE OF SAN JOSE DEL CONDE, NAYARIT.

" 29 - MAY 1 3 MI. N OF SANTA ISABEL, NAYARIT.

MAY 2-3 IXTLAN, NAYARIT.

MAY 4 GUADALAJARA, JAL.

MAY 5 NEVADO DE COLIMA, JAL.

MAY 6-7 CIUDAD GUZMAN, JAL.

MAY 8 NEVADO DE COLIMA, JAL.

" 9-10 GUADALAJARA, JAL.

" 11 9 MI. W. OF ZAMORA, MICHOACAN.

" 12-14 4 MI. S. OF PATZCUARO, MICHOACAN.

ITINERARY (CONT.)

- May 15-17 Mexico City, D.F.
- " 18 ZIMAPAN, HIDALGO.
- " 19-20 PANA AYUCLTE, TAMAULIPAS
- " 21 ENROUTE
- " 22 MT. VERNON, ILLINOIS
- " 23 RUN ARBOR, MICHIGAN

